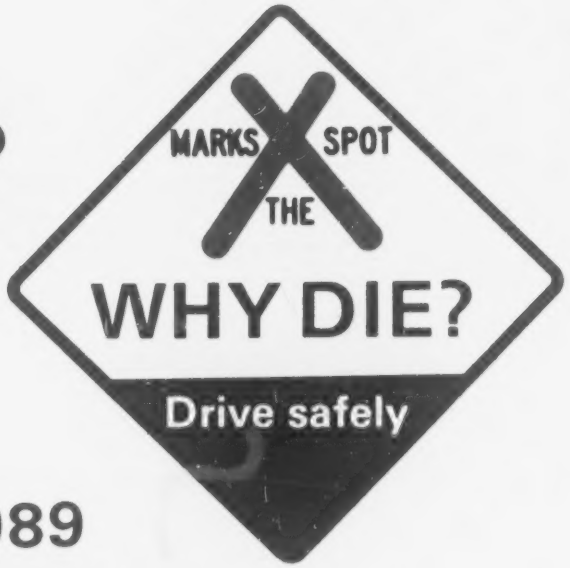


1989
South Dakota
Motor Vehicle Traffic Accident Summary

George S. Mickelson
Governor

Prepared By
Department of Transportation
Accident Records Office

In Cooperation With
Department of Commerce & Regulation
Office of Highway Safety

MARKS
THE
SPOT
WHY DIE?
Drive safely

STATE OF SOUTH DAKOTA

GEORGE S. MICKELSON
GOVERNOR

EXECUTIVE OFFICE
STATE CAPITOL
PIERRE, SOUTH DAKOTA
57501
(605)773-3212

Dear Reader:

As long as there are roadways, there are always going to be accidents and crashes. The goal is to learn how to reduce the number and the severity of both. By looking at each crash and accident carefully and analyzing the causes and the facts surrounding each one, we can strive to improve the safety of South Dakota's roadways. The 1989 South Dakota Motor Vehicle Traffic Accident Summary focuses on these concerns.

The efforts of various departments and individuals all working together are increasing safety awareness in drivers and pedestrians alike. Whether it is getting the drinking driver off the road, convincing people of the advantages of safety belt use, teaching children how to be safe while walking or bicycling, or just general traffic safety for everyone, these are all areas of concern. The improvement of these areas, and more, will, in turn, reduce the chance of death and injury on South Dakota's roads.

Through the continued effort of the traffic safety program, South Dakotans are becoming much more aware of the advantages of safer travel. With everyone working together, we will be able to reduce the number of those who are killed or injured in South Dakota. I look forward to even more improved results and achievements.

Always remember, please drive defensively and sober, and please...BUCKLE UP!

Very truly yours,

GEORGE S. MICKELSON

TABLE OF CONTENTS

		PAGE
I.	INTRODUCTION	
	South Dakota Statistical Summary 1989	2
II.	HISTORICAL TRENDS	
	Motor Vehicle Accidents	3
	Alcohol Involvement	6
	Restraint Usage	12
	Cycle and Pedestrian Accidents	13
	Holiday Counts	15
III.	1989 MOTOR VEHICLE ACCIDENT PROFILE	
	Introduction	17
	First Harmful Event	22
	Manner of Collision	23
	Highway System	24
	County Summary	26
	City Summary	26
	Roadway Surface Conditions	26
	Contributing Circumstances	26
	Accidents by Time of Day, Month, and Day of Week	32
	Drivers	36
	Motorcycles	43
	Pedestrians	46
	Bicycles	48
IV.	GLOSSARY OF TERMS	49

LIST OF FIGURES

FIGURE		PAGE
2-1	Fatality Rate Comparison	4
2-2	1989 Traffic Fatalities - Alcohol Related vs. Nonalcohol Related	7
2-3	1989 Traffic Injuries - Alcohol Related vs. Nonalcohol Related	7
2-4	Fatal and Injury Accidents and DWIs	9
2-5	Fatal Accidents 1979 - 1989	9
2-6	1989 Fatal and Injury Accident Levels	11
3-1	Fatalities by Travel Mode	19
3-2	Injuries by Travel Mode	19
3-3	1989 Traffic Accidents by Highway System Type	25
3-4	1989 Fatal Traffic Accidents by Highway System Type	25
3-5	Rural Fatal and Injury Accidents/Vehicle Miles Traveled	30
3-6	Accidents by Time of Day	35
3-7	Accidents by Month	35
3-8	Accidents by Day of Week	35
3-9	Drivers by Age Group - Fatal and Injury Accident-Involved Drivers	39
3-10	Young Drivers - Fatal and Injury Accident-Involved Drivers	40
3-11	Motorcyclists - Accident-Involved Motorcycle and Moped Drivers	44

LIST OF TABLES

TABLE		PAGE
2-1	Fatality Rate Comparison	3
2-2	South Dakota Yearly Comparison of Motor Vehicle Traffic Fatalities, Injuries, Accidents, Miles Traveled, and Registered Motor Vehicles	5
2-3	Alcohol Involved Accidents as Percent of All Accidents	6
2-4	Accident and Arrest Activity	8
2-5	Comparison of Accident and Arrest Activity - Alcohol-Related vs. Nonalcohol-Related	10
2-6	Safety Restraint Usage Accident-Involved Drivers	12
2-7	Fatalities and Injuries to Motor Vehicle Occupants Under Five Years of Age	12
2-8	Motorcycle Accidents	13
2-9	Pedestrian Fatalities and Injuries	14
2-10	Bicycle Fatalities and Injuries	14
2-11	Accidents During Holidays	15-16
3-1	Fatalities and Severity of Injuries of Drivers, Passengers, Pedestrians, and Bicyclists	17
3-2	Fatalities and Injuries by Mode of Transportation	18
3-3	Vehicle Types Involved in Accidents	20
3-4	Fatalities and Injuries by Age Group	21
3-5	First Harmful Event	22
3-6	Manner of Collision for Accidents Involving a Collision Between Two or More Motor Vehicles	23
3-7	Accidents by Type of Highway	24
3-8	Reported Traffic Accidents - South Dakota Counties	27-28
3-9	Counties Having More Than Two Percent of the Rural Fatal and Injury Accidents	29
3-10	Traffic Accidents - South Dakota Cities Population 2500 and Over	31
3-11	Roadway Surface Conditions	32
3-12	Accidents by Time of Day	33
3-13	Accidents by Month	34
3-14	Accidents by Day of Week	34
3-15	Age of Drivers in Accidents	36
3-16	Age of Drinking Drivers in Accidents	37
3-17	Licensed Drivers and Fatal and Injury Accident-Involved Drivers by Age	38
3-18	Motor Vehicle Driver Contributing Circumstances	42
3-19	Motorcyclists by Age Group	43
3-20	Helmet Use by Motorcycle Drivers in Accidents	45
3-21	Age of Pedestrians in Traffic Accidents	46
3-22	Alcohol Involvement by Pedestrians	47
3-23	Rural vs. Urban Pedestrian Accidents	47
3-24	Age of Bicycle Drivers in Traffic Accidents	48

I. INTRODUCTION

The South Dakota Motor Vehicle Accident Summary was developed to provide an overview of the South Dakota traffic accident picture, as well as make frequently requested information available. Information from 1989 comprises the major portion of the book; however, basic historic trends are also provided for reference.

The Motor Vehicle Accident Summary is divided into two main sections, Historical Trends and 1989 Motor Vehicle Accident Profile. The Historical Trend section provides information on alcohol involvement in motor vehicle accidents and results of South Dakota's efforts to combat the drinking driver. This section also provides data on restraint usage and accident trends. The 1989 Accident Profile section details the accident picture for 1989 as well as a glossary of terms.

The majority of the information in this book is provided by the Accident Records Section within the Department of Transportation. Current state law requires an accident report be filed for each motor vehicle traffic accident resulting in the death or injury of a person, or property damage to an apparent extent of five hundred dollars or more to any one person's property or one thousand dollars accumulated damage per accident. Law enforcement agencies provide the accident reports to Accident Records. These reports are available to the public for a fee of two dollars.

Examples of reports available through Accident Records are:

STANDARD REPORTS - These reports provide the user with a standard set of summary information for a preselected subset of all accidents, e.g., all accidents involving a drinking driver.

PLOT MAPS - These maps supply the user with a graphic display on which the location of each accident in a given geographic area has been plotted on transparent paper and scaled to overlay maps provided by the Department of Transportation.

SPECIAL REQUESTS - Special requests are answered using several computer packages, one of which is an on-line query system which provides almost immediate response to requests of a very specific nature.

For additional information or copies, write or call:

Accident Records Section
118 West Capitol Avenue
Pierre, SD 57501-2080
Phone: (605) 773-3868

-OR-

Office of Highway Safety
118 West Capitol Avenue
Pierre, SD 57501-2080
Phone: (605) 773-3675

SOUTH DAKOTA
STATISTICAL SUMMARY

1989

NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC ACCIDENTS: 15,005

AMOUNT OF MOTOR VEHICLE TRAFFIC ACCIDENT PROPERTY DAMAGE: $41 million

NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENT INJURIES: 6,828

NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENT FATALITIES: 152

ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC ACCIDENTS: $129 million

PERCENT OF DRIVERS IN FATAL ACCIDENTS WHO HAD BEEN DRINKING: 37.6%

NUMBER KILLED IN ALCOHOL-RELATED ACCIDENTS: 80

NUMBER INJURED IN ALCOHOL-RELATED ACCIDENTS: 1,255

NUMBER OF PEDESTRIANS KILLED: 10

NUMBER OF MOTORCYCLISTS KILLED: 14

NUMBER OF BICYCLISTS KILLED: 2

PERCENT OF LICENSED DRIVERS UNDER 25: 18%

PERCENT OF ACCIDENT-INVOLVED SPEEDING DRIVERS UNDER 25: 53.4%

PERCENT OF ACCIDENT-INVOLVED DRINKING DRIVERS UNDER 25: 42.4%

PERCENT OF DRIVERS KILLED IN MOTOR VEHICLE ACCIDENTS NOT WEARING SEATBELTS (F.A.R.S): 97%

PERCENT OF SEATBELT USAGE BY TEENAGE DRIVERS KILLED IN MOTOR VEHICLE ACCIDENTS: 0%

NUMBER OF DWI CONVICTIONS: 6,271

SEATBELT USE RATE OF ACCIDENT-INVOLVED DRIVERS: 26.4%

NUMBER OF UNRESTRAINED CHILDREN UNDER 5 YEARS OF AGE KILLED IN MOTOR VEHICLE ACCIDENTS: 1

NUMBER OF PROPERLY RESTRAINED CHILDREN UNDER 5 YEARS OF AGE KILLED IN MOTOR VEHICLE ACCIDENTS: 0

AVERAGE TRAVEL SPEED ON SOUTH DAKOTA HIGHWAYS POSTED 55 MPH: 56.8 MPH

PERCENT OF MOTORISTS EXCEEDING 55 MPH ON POSTED 55 MPH HIGHWAYS: 58.0%

Source: Department of Transportation: Accident Records

II. HISTORICAL TRENDS

Motor Vehicle Accidents

The fatality rates per 100 million vehicle miles traveled from 1980-1989 for South Dakota, states surrounding South Dakota, and the nation are shown in TABLE 2-1. South Dakota's rate, the national rate, and the rate of those states bordering South Dakota have all shown a decline over the last ten years. South Dakota's rate has increased the last 2 years. FIGURE 2-1 compares South Dakota with the national rate and two comparable rural states, North Dakota and Wyoming.

TABLE 2-1
FATALITY RATE COMPARISON
1980-1989

State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
South Dakota	4.2	3.2	2.7	2.7	2.2	2.0	2.0	1.9	2.0	2.1
Iowa	3.4	3.3	2.5	2.6	2.1	2.3	2.2	2.3	2.6	2.3
Minnesota	3.0	2.7	2.0	1.8	1.8	1.8	1.7	1.5	1.7	1.6
Montana	4.9	4.8	3.8	4.0	3.2	3.0	2.9	2.9	2.4	2.2
Nebraska	3.5	3.3	2.3	2.2	2.4	2.0	2.3	2.3	2.0	2.1
North Dakota	2.9	3.0	2.8	2.2	1.9	1.6	1.8	1.7	1.8	1.4
Wyoming	5.2	5.4	3.9	3.4	3.1	2.9	3.2	2.5	2.9	2.3
National	3.4	3.2	2.8	2.6	2.6	2.5	2.5	2.4	2.4	2.2

Note: Fatality Rate is the number of traffic fatalities per 100 million vehicle miles traveled.

Source: Department of Transportation: Accident Records

TABLE 2-2 provides a yearly comparison of South Dakota's motor vehicle traffic accidents from 1960 through 1989. Any comparison of motor vehicle accidents must be made with caution due to the changes in the definition of a reportable accident. For example, in the late 1970's the definition of a fatality caused by a motor vehicle accident was changed from the death occurring up to one year after the accident to death occurring within 30 days after the accident. There does not appear to be a single reason why there are fewer fatalities; however, the national 55 mph speed limit law initiated in 1974 and the increased efforts in the drinking driving area in 1981 have probably had the most impact. Other factors include improvements in the highways, safer vehicles, and traffic enforcement efforts. Although the number of fatal and injury accidents have shown an increase in recent years, the rates have stayed consistent using the increased vehicle miles traveled and the rates are still much lower than the 1960's and 1970's.

FIGURE 2-1 FATALITY RATE COMPARISON

1979 - 1989

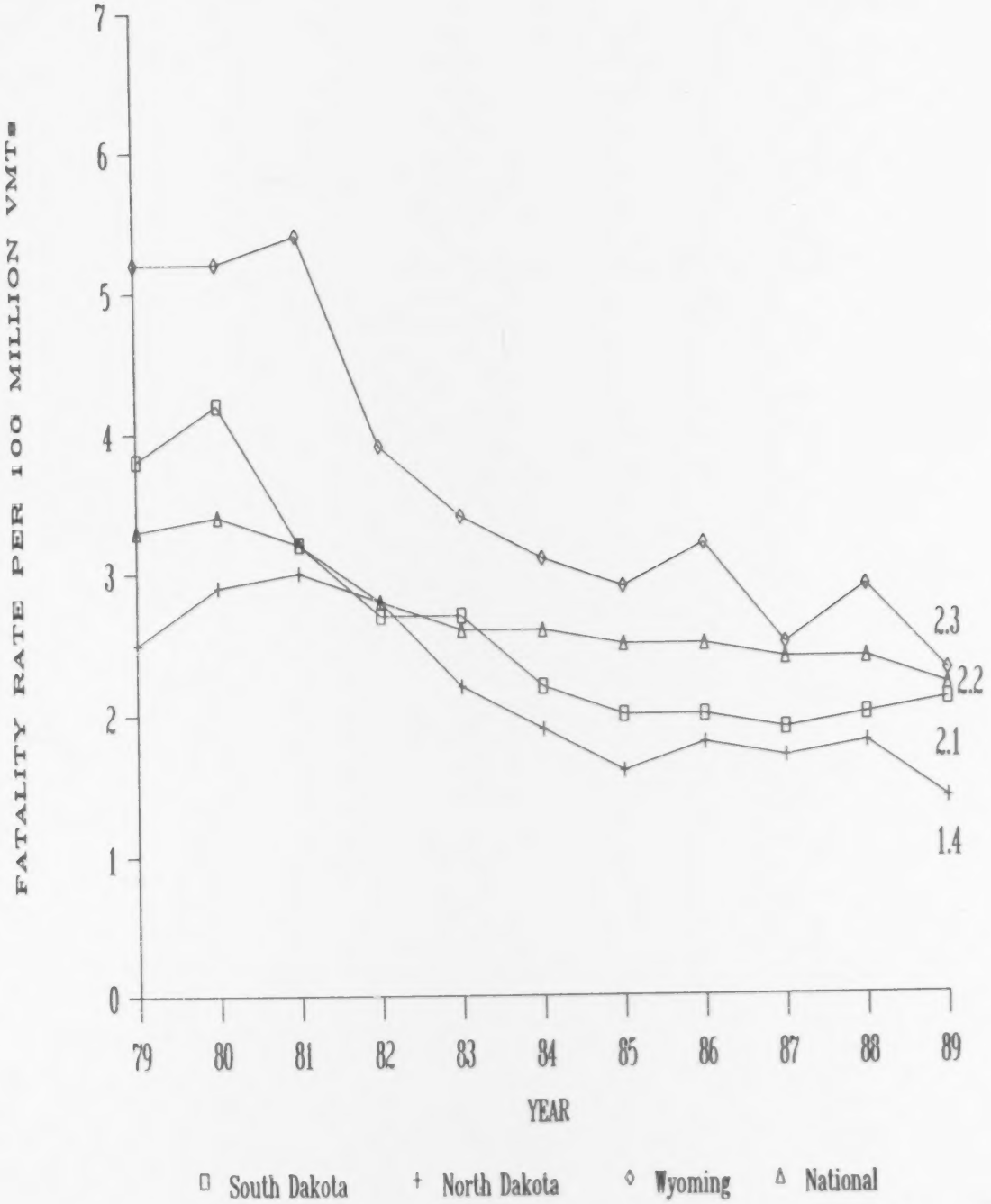


TABLE 2-2
SOUTH DAKOTA YEARLY COMPARISON
OF MOTOR VEHICLE TRAFFIC FATALITIES, INJURIES,
ACCIDENTS, MILES TRAVELED, & REGISTERED MOTOR VEHICLES

Year	Fatalities	Rate[1]	Injuries	Total Accd.	Fatal Accd.	Injury Accd.	PDO[2] Accd.	Miles[3] Traveled +(000,000)	Registered Motor Vehicles +(000)
1960	233	6.94	3,656	7,187	191	2,121	4,875	3,359	351
1961	228	6.75	3,848	7,281	184	2,313	4,784	3,379	361
1962	246	6.77	4,248	8,805	191	2,592	6,022	3,631	377
1963	220	5.83	4,123	8,874	185	2,530	6,159	3,776	386
1964	270	7.03	4,569	9,349	211	2,816	6,322	3,839	387
1965	244	6.13	4,685	10,015	194	2,880	6,941	3,983	396
1966	265	6.50	5,072	10,821	205	3,087	7,529	4,075	402
1967	224	5.41	5,286	12,154	183	3,250	8,721	4,142	407
1968	255	5.91	5,612	14,061	215	3,396	10,450	4,313	409
1969	296	6.79	5,921	16,565	219	3,584	12,762	4,361	422
1970	238	5.12	5,492	16,165	189	3,395	12,581	4,648	427
1971	262	5.36	6,705	16,995	210	4,152	12,633	4,884	444
1972	294	5.83	6,718	17,883	235	4,267	13,381[2]	5,039	467
1973	286	5.57	6,774	14,985	228	4,321	10,436[2]	5,136	494
1974	229	4.47	6,211	11,727	203	4,077	7,447[2]	5,126	519
1975	198	3.82	6,769	15,146	163	4,398	10,585[2]	5,186	533
1976	224	4.07	7,423	15,755	188	4,840	10,727	5,503	554
1977	211	3.67	7,603	18,020	180	5,013	12,827[2]	5,754	575
1978	194	3.33	7,861	18,085	168	5,263	12,654[2]	5,830	599
1979	211	3.76	7,189	16,059	169	4,826	11,064	5,614	616
1980	228	4.18	7,147	14,845	188	4,770	9,887	5,456	622
1981	177	3.17	6,771	14,375	162	4,614	9,599	5,582	637
1982	148	2.68	6,174	14,605	129	4,192	10,284	5,528[3]	640
1983	175	2.73	6,287	14,971	147	4,175	10,649	6,406	655
1984	143	2.24	6,158	15,093	132	4,297	10,664	6,394	669
1985	130	2.02	6,240	15,435	109	4,229	11,097[2]	6,443	674
1986	134	1.98	6,008	13,714	118	4,105	9,491	6,762	686
1987	134	1.87	6,221	13,083	107	4,173	8,803	7,171	711
1988	147	2.04	6,579	14,821	127	4,455	10,239	7,213	709
1989	152	2.06	6,828	15,005	134	4,605	10,266	7,366	719

[1]Number of fatalities per 100 million vehicle miles traveled.

[2]Prior to July 1, 1973 the threshold for a reportable property damage only (PDO) accident was $100 to one person's property. July 1, 1973 the PDO amount was increased to $250.

January 1, 1975, the PDO threshold definition changed to accumulated property damage of $250 or more. July 1, 1978 the PDO threshold was increased to $400 accumulated property damage. July 1, 1986, the PDO threshold definition changed to $500 to any one person's property or $1000 accumulated property damage per accident.

[3]1983 the formula for computing VMTs was adjusted, resulting in an approximate 9.5% increase in annual VMTs.

Source: Department of Transportation: Accident Records

Alcohol Involvement

Alcohol continues to be a significant factor in motor vehicle accidents, especially the serious accidents involving death and injuries (see TABLE 2-3 and FIGURES 2-2 and 2-3). The 1989 fatal accidents and fatalities increased from recent years. The 70 fatal accidents exceeded totals since 1984. The 80 people killed exceeded totals since 1983. The 1986 percentages were higher, however, fewer people were killed.

TABLE 2-3
ALCOHOL INVOLVED ACCIDENTS AS PERCENT OF ALL ACCIDENTS
1983-1989

	1983	1984	1985	1986	1987	1988	1989
Total Accidents	13.6 (2029)	13.2 (1993)	11.2 (1728)	11.5 (1577)	10.8 (1416)	10.6 (1566)	10.2 (1528)
Fatal Accidents	49.0 (72)	53.8 (71)	51.4 (56)	54.2 (64)	48.6 (52)	50.4 (64)	52.2 (70)
Injury Accidents	22.4 (935)	20.8 (894)	19.2 (810)	18.7 (769)	17.5 (731)	18.1 (808)	16.8 (773)
PDO Accidents	9.6 (1022)	9.6 (1028)	7.8 (862)	7.8 (744)	7.2 (633)	6.8 (694)	6.7 (685)
Fatalities	50.9 (89)	53.1 (76)	53.1 (69)	55.2 (74)	49.3 (66)	47.6 (70)	52.6 (80)
Injuries	24.3 (1528)	22.3 (1371)	20.5 (1280)	20.2 (1214)	19.0 (1183)	19.6 (1289)	18.4 (1255)

NOTE: Alcohol involvement for Fatal Accidents is based upon a positive BAC result and/or indication of alcohol use as reported by the investigating officer.

Fatal, Injury and Property Damage Accidents - At least one driver, pedestrian or bicycle driver had been drinking in the opinion of the investigating officer.

Source: Department of Transportation: Accident Records

FIGURE 2-2 1989 TRAFFIC FATALITIES

Alcohol Related vs Non Alcohol Related

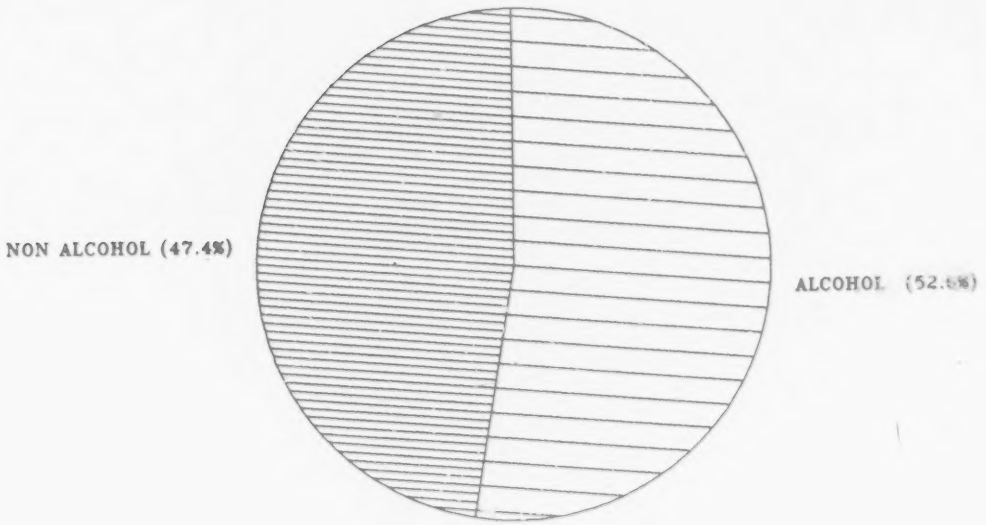


FIGURE 2-3 1989 TRAFFIC INJURIES

Alcohol Related vs Non Alcohol Related

The State of South Dakota initiated a statewide effort during 1981 to increase the DWI enforcement and public awareness efforts. The numbers of persons killed and injured in alcohol-related accidents have declined since 1981. The following accident and arrest data is presented to quantify the reduction of alcohol-related fatal and injury accidents and to compare that reduction to the nonalcohol-related accident experience (see TABLE 2-4).

TABLE 2-4
ACCIDENT AND ARREST ACTIVITY
1979 - 1989

	FATAL ACCIDENTS		FATAL & INJURY ACCIDENTS		
	ALCOHOL RELATED	NONALCOHOL RELATED	ALCOHOL RELATED	NONALCOHOL RELATED	DWI ARRESTS
1979	94	75	1216	3779	4136
1980	105	83	1391	3567	4151
1981	100	62	1366	3410	5068
1982	77	52	1007	3314	6842
1983	72	75	1007	3315	9840
1984	71	61	965	3464	9972
1985	56	53	866	3472	9363
1986	64	54	833	3390	9485*
1987	52	55	783	3497	8369*
1988	64	63	872	3710	7134*
1989	70	64	843	3896	6271

*Delayed Chemical Test Data was added to file.
Source: Department of Transportation: Accident Records

FIGURE 2-4 presents the annual counts of DWI arrests, alcohol-related fatal and injury accidents, and nonalcohol-related fatal and injury accidents for 1979 to 1989. FIGURE 2-5 presents the alcohol-related and nonalcohol-related fatal accident experience.

To facilitate comparison of 1989 accident and arrest experience, a baseline three-year average (1979-81) and the previous three-year average (1986-88) are presented in TABLE 2-5. Additionally, TABLE 2-5 includes the percentage change in 1989 accident and arrest levels from the baseline three-year average, the previous three-year average, and the prior year. See Figure 2-6 for a graphic comparison of the percentage change of the 1989 levels.

There were 70 alcohol-related fatal accidents during 1989, which compares to 64 in 1988. The previous three-year average was 60 and the baseline average was 100. Alcohol-related fatal accidents were down 30 percent when compared to the baseline three-year average, while nonalcohol-related fatal accidents declined 13 percent during the same period.

There were 843 alcohol-related fatal and injury accidents during 1989, which compares to 872 in 1988. The previous three-year average was 829 or a two percent increase in 1989. Nonalcohol-related fatal and injury accidents in 1989 increased ten percent from the previous three-year average.

There were an estimated 6,271 DWI arrests in 1989. This level is down (25%) from the previous three-year average, but up 41 percent from the baseline period (1979-1981).

FIG2-4 F&I ACCIDENTS AND DWIs

1979 - 1989

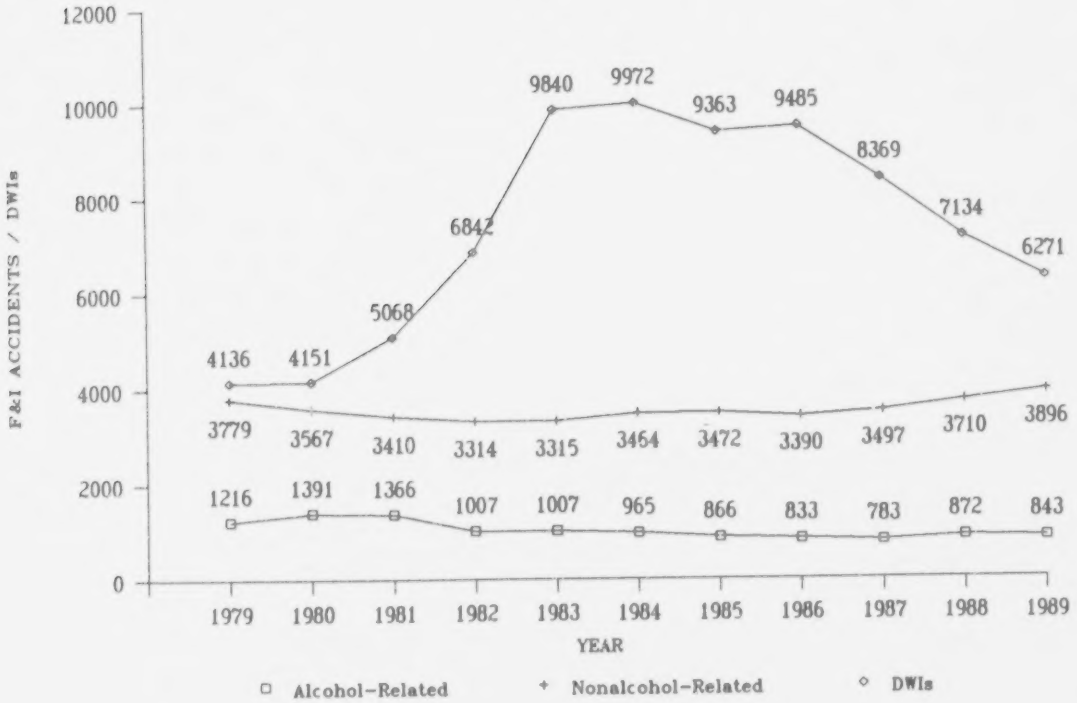


FIG2-5 FATAL ACCIDENTS

1979 - 1989

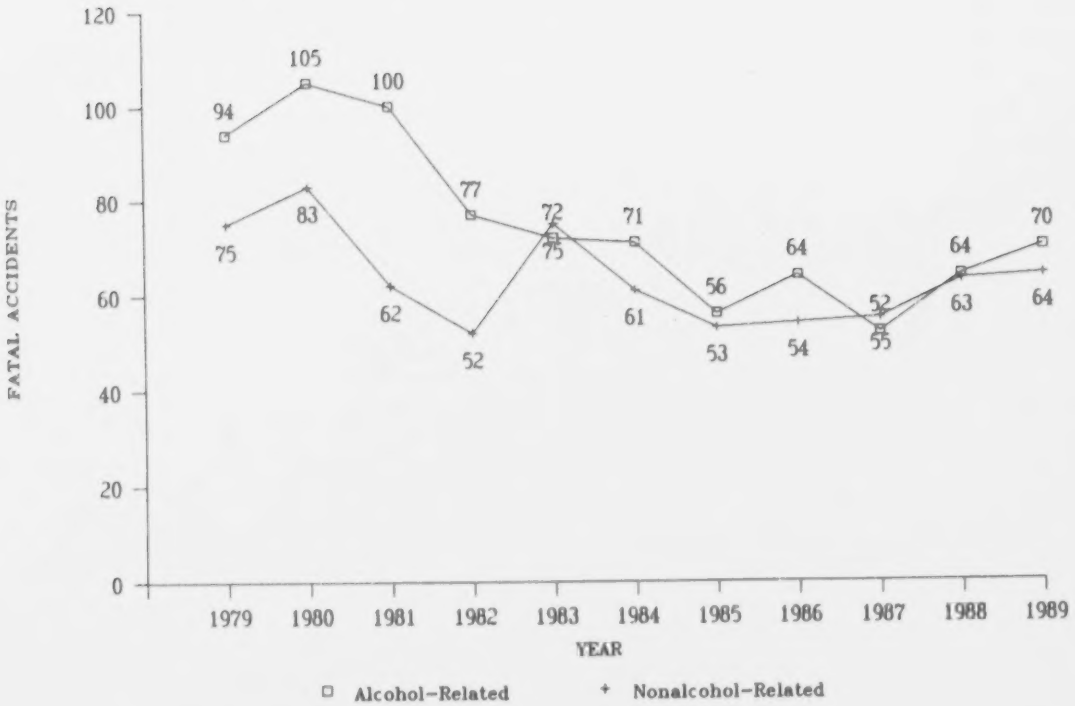


TABLE 2-5
COMPARISION OF ACCIDENT AND ARREST ACTIVITY
(1979 - 1989)

	Baseline 3-Yr. Avg. (1979-81)	Previous 3-Yr. Avg. (1986-88)	1988	1989	PERCENTAGE CHANGE OF 1989 LEVELS COMPARED TO: Baseline 3-Yr. Avg. (1979-81)	Previous 3-Yr. Avg. (1986-88)	1988
Fatal Accidents							
Alcohol-Related	99.7	60.0	64	70	-30%	+17%	+9%
Nonalcohol-Related	73.3	57.3	63	64	-13%	+12%	+2%
Fatal & Injury Accidents							
Alcohol-Related	1324.3	829.3	872	843	-36%	+2%	-3%
Nonalcohol-Related	3585.3	3532.3	3710	3896	+9%	+10%	+5%
DWI's	4451.7	8329.3	7134	6271	+41%	-25%	-12%

FIGURE 2-6 1989 F&I ACCIDENT LEVEL

COMPARED TO 1979 - 1988 LEVELS

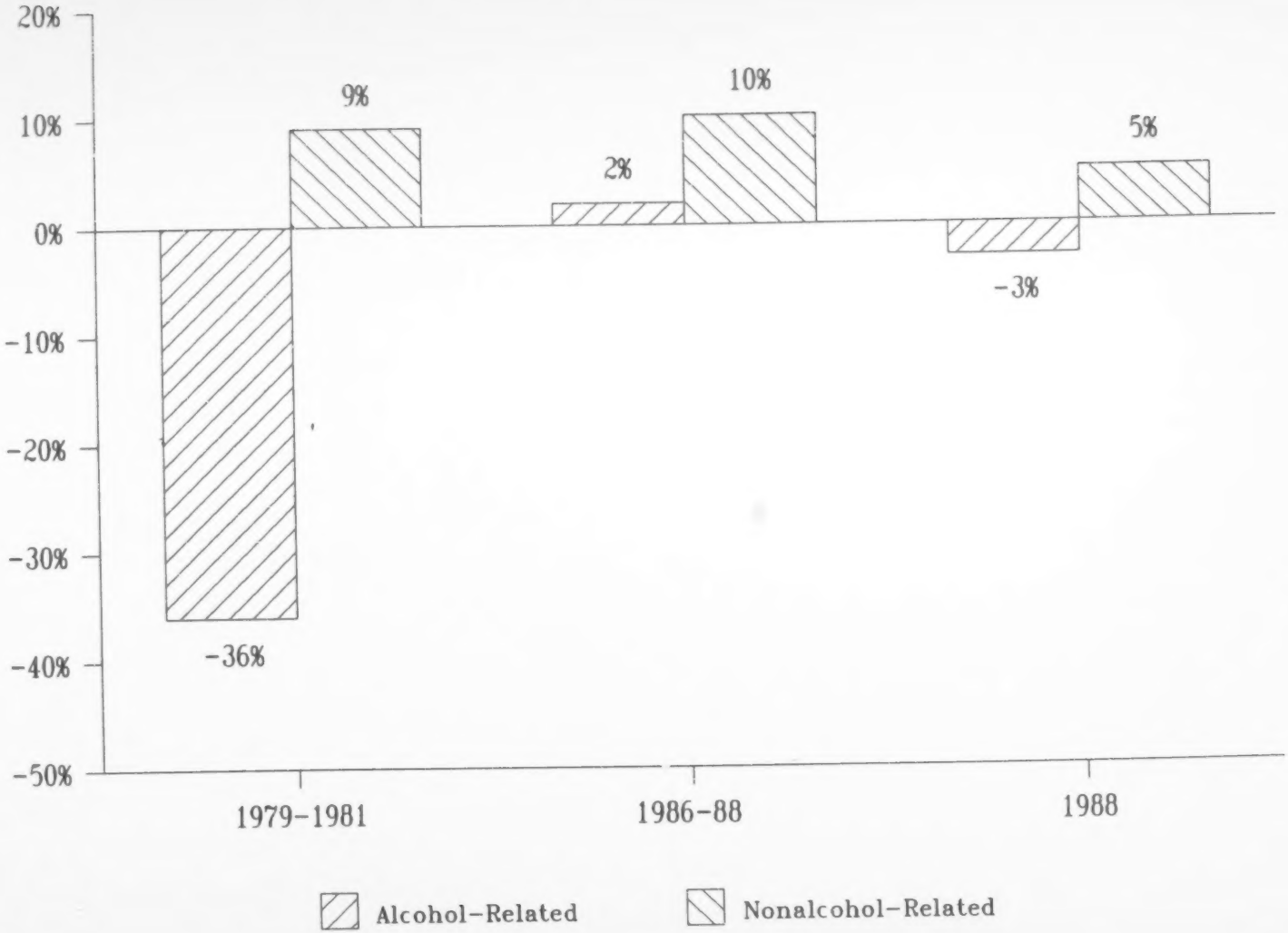


TABLE 2-6
SAFETY RESTRAINT USAGE
ACCIDENT-INVOLVED DRIVERS
1984 - 1989

DRIVER AGE	USAGE RATE 1984	1985	1986	1987	1988	1989
14-15	4.6%	4.2%	7.6%	8.5%	12.7%	14.1%
16-17	3.7%	4.8%	6.8%	9.3%	10.4%	14.8%
18-20	5.0%	7.0%	9.9%	14.1%	16.3%	16.7%
21-24	7.7%	10.9%	13.4%	19.0%	24.2%	25.0%
25-34	12.1%	14.3%	17.8%	22.9%	28.2%	31.3%
35-44	11.7%	14.4%	18.6%	26.4%	29.7%	32.8%
45-54	11.1%	13.1%	17.4%	24.0%	28.7%	33.1%
55-64	10.1%	12.2%	17.2%	22.7%	29.1%	31.5%
65-Over	8.4%	9.7%	14.5%	19.5%	23.2%	24.7%
Total	8.9% (1805)	11.1% (2363)	14.6% (2718)	19.6% (3482)	23.8% (4819)	26.4% (5422)

Source: Department of Transportation: Accident Records

The increased usage of safety restraints by accident-involved drivers is an indicator that usage is increasing in South Dakota across all age groups.

Motor vehicle occupants from birth through four years of age accounted for one fatality during 1989, which compares to three fatalities in 1988 and the previous three-year average of 3.3 (see TABLE 2-7). The child killed was not restrained.

There were 136 children (birth through 4 years) injured in 1989, which compares to 151 in 1988 and the three-year average of 139.

TABLE 2-7
FATALITIES & INJURIES TO MOTOR VEHICLE OCCUPANTS
UNDER 5 YEARS OF AGE

YEAR	FATALITIES	SERIOUS INJURY	SLIGHT INJURY	TOTAL NONFATAL INJURIES
1981	0	107	44	151
1982	3	85	47	132
1983	5	86	63	149
1984	3	78	61	139
1985	4	74	50	124
1986	4	70	51	121
1987	3	87	59	146
1988	3	101	50	151
1989	1	83	52	136

NOTE: Table includes passengers of Motor vehicles normally equipped with safety restraints.

Source: Department of Transportation: Accident Records

Cycle and Pedestrian Accidents

The following tables provide a yearly comparison of South Dakota's motorcycle, pedestrian, and bicycle accidents, injuries, and fatalities from 1970 through 1989. Moped accidents are included with motorcycle accidents. Over the years only one fatal moped accident has been recorded in South Dakota, and the number of injuries is small. See pages 43-48 for additional motorcycle, pedestrian, and bicycle accident information.

TABLE 2-8
MOTORCYCLE ACCIDENTS
1970 - 1989

Year	Motorcycle Accidents Total	Fatal	Injury	Motorcyclists Fatalities	Injuries	Registered Motorcycles	Licensed Motorcyclists
1970	217	8		8	211	11,964	
1971	336	11		13	342	13,865	
1972	314	6		8	312	16,605	
1973	395	13		14	425	19,737	
1974	344	8		9	372	22,964	
1975	377	14	321	14	388	23,980	
1976	465	9	402	9	501	25,058	
1977	495	17	419	19	529	26,560	
1978	523	14	456	14	560	27,590	34,225
1979	597	21	522	22	664	31,102	37,286
1980	707	17	608	18	763	35,045	41,431
1981	697	15	598	15	729	38,265	43,170
1982	548	12	473	13	581	38,418	Not Available
1983	573	12	489	12	591	39,255	45,544
1984	564	10	488	10	567	38,956	45,763
1985	551	14	469	15	569	37,905	45,805
1986	475	10	405	10	492	36,036	45,210
1987	399	13	347	14	417	33,800	44,956
1988	424	13	371	13	441	31,421	44,058
1989	377	14	329	14	394	29,942	45,844

Source: Department of Transportation: Accident Records

TABLE 2-9
PEDESTRIAN FATALITIES AND INJURIES
1970 - 1989

Year	Fatalities	Injuries
1970	17	158
1971	15	170
1972	30	199
1973	21	161
1974	25	158
1975	11	179
1976	24	158
1977	21	164
1978	15	185
1979	16	167
1980	21	162
1981	20	130
1982	16	146
1983	20	139
1984	14	139
1985	8	136
1986	15	165
1987	7	126
1988	14	149
1989	10	125

TABLE 2-10
BICYCLE FATALITIES AND INJURIES
1970 - 1989

Year	Fatalities	Injuries
1970	3	67
1971	4	90
1972	2	94
1973	4	82
1974	2	115
1975	1	108
1976	3	99
1977	7	89
1978	3	82
1979	4	96
1980	0	78
1981	0	83
1982	1	93
1983	1	99
1984	4	95
1985	3	119
1986	1	115
1987	1	157
1988	2	137
1989	2	144

Source: Department of Transportation: Accident Records

Holiday Counts

TABLE 2-11 provides a yearly comparison of South Dakota motor vehicle accident experience during major holiday observances. These counts are frequently requested and reported.

TABLE 2-11
ACCIDENTS DURING HOLIDAYS
1977 - 1989

Holiday	Total Hours	Total Accd.	Fatal Accd.	Injury Accd.	Fatalities	Injuries
MEMORIAL DAY*						
1977	78	147	1	46	1	75
1978	78	146	1	54	1	84
1979	78	144	3	60	3	91
1980	78	128	5	46	12	71
1981	78	129	3	48	3	65
1982	78	129	2	45	2	75
1983	78	119	4	43	4	77
1984	78	110	0	36	0	54
1985	78	124	3	44	3	65
1986	78	142	3	37	3	56
1987	78	97	1	28	1	47
1988	78	127	2	36	2	68
1989	78	121	1	46	1	63
FOURTH OF JULY						
1977	78	169	5	70	6	115
1978	102	241	2	108	3	171
1979	30	60	0	27	0	40
1980	78	166	3	56	3	86
1981	78	174	2	63	2	97
1982	78	160	1	64	1	106
1983	78	136	1	46	1	82
1984	30	61	1	22	1	33
1985	102	170	1	58	1	93
1986	78	109	4	47	4	94
1987	78	124	1	53	4	74
1988	78	138	2	48	2	74
1989	102	185	3	67	3	119
LABOR DAY						
1977	78	179	3	70	3	108
1978	78	150	2	66	2	112
1979	78	140	1	55	1	83
1980	78	108	2	35	2	65
1981	78	149	2	68	2	105
1982	78	134	1	62	1	100
1983	78	132	5	48	6	71

*Nationally Observed

Holiday	Total Hours	Total Accd.	Fatal Accd.	Injury Accd.	Fatalities	Injuries
LABOR DAY (cont'd)						
1984	78	111	3	42	3	64
1985	78	127	3	40	3	63
1986	78	106	1	34	1	62
1987	78	135	2	44	3	73
1988	78	131	1	45	1	94
1989	78	134	1	58	4	101
THANKSGIVING						
1977	102	278	0	66	0	95
1978	102	316	2	76	2	122
1979	102	223	3	48	3	67
1980	102	192	3	63	8	94
1981	102	197	0	39	0	54
1982	102	184	2	47	2	67
1983	102	210	2	44	3	71
1984	102	194	2	56	2	83
1985	102	272	0	51	0	76
1986	102	162	3	37	3	63
1987	102	255	2	56	3	91
1988	102	224	1	42	1	70
1989	102	232	2	61	2	112
CHRISTMAS						
1977	78	206	1	58	4	89
1978	78	149	1	40	1	66
1979	102	162	4	53	4	80
1980	102	222	3	58	3	92
1981	78	103	3	21	3	42
1982	78	198	1	42	1	72
1983	78	155	0	30	0	47
1984	102	195	0	35	0	52
1985	54	97	1	13	2	25
1986	102	88	1	28	1	51
1987	102	209	1	63	2	108
1988	78	153	1	38	1	57
1989	78	179	1	50	1	87
NEW YEARS						
1977-78	78	254	4	61	4	94
1978-79	78	139	1	34	1	44
1979-80	102	204	3	62	5	91
1980-81	102	169	1	58	1	106
1981-82	78	147	1	32	1	42
1982-83	78	137	2	29	2	39
1983-84	78	166	0	41	0	59
1984-85	102	132	2	24	2	39
1985-86	54	98	1	19	1	27
1986-87	102	138	1	30	1	49
1987-88	102	151	0	33	0	43
1988-89	78	103	2	23	2	40
1989-90	78	84	0	31	0	50

Source: Department of Transportation: Accident Records

III. 1989 MOTOR VEHICLE ACCIDENT PROFILE

Introduction

This section profiles the reported motor vehicle traffic accidents for 1989. Information will be given on where the accidents are occurring, when accidents happen, who is involved, and factors that contribute to accidents or why they are occurring. **Column percentages may not total 100 percent due to rounding error.**

During 1989, there were 15,005 reported motor vehicle traffic accidents, the majority of accidents being property damage only 10,266 (68%). Injury accidents accounted for 4,605 (31%) of the accidents, while 134 (1%) were fatal accidents. There were 6,828 persons injured and 152 persons killed in accidents during 1989 (see TABLE 3-1).

TABLE 3-1
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS,
PASSENGERS, PEDESTRIANS, AND BICYCLISTS
1989

	Incapac. Injuries		Nonincapac. Injuries		Possible Injuries		Total Nonfatal Injuries		Total Fatalities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Drivers	782	57.2	1,676	60.5	1,841	68.4	4,299	63.0	87	57.2
Passengers	501	36.7	971	35.1	791	29.4	2,263	33.1	53	34.9
Pedestrians	46	3.4	47	1.7	32	1.2	125	1.8	10	6.6
Bicycle Dr.	37	2.7	76	2.7	28	1.0	141	2.1	2	1.3
Total	1,366	100	2,770	100	2,692	100	6,828	100	152	100

Note: Incapacitating - severe lacerations, broken limbs or unable to leave the scene of the accident without assistance.

Nonincapacitating - minor lacerations, lumps on the head, abrasions and bruises.

Possible - momentary unconsciousness, limping, nausea, or complaint of pain.

Source: Department of Transportation: Accident Records

TABLE 3-2 provides information on persons killed and injured by method or mode of transportation. During 1989, 56 percent of the fatalities and nearly two-thirds of the injuries occurred to occupants of passenger cars. Occupants of pickups and vans accounted for about one-fourth of the fatalities. Additionally, in 1989 10 pedestrians, 14 motorcyclists, two bicyclists, and one farm tractor occupant were killed (see FIGURES 3-1 and 3-2).

TABLE 3-2
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION
1989

	Fatalities		Injuries	
	No.	%	No.	%
Passenger Cars	85	55.9	4,524	66.3
Pickups, Vans	36	23.7	1,434	21.0
Motorcycle, Moped	14	9.2	394	5.8
Pedestrians	10	6.6	125	1.8
Trucks (All)	4	2.6	143	2.1
Bicycle	2	1.3	144	2.1
Farm Machinery	1	0.7	7	0.1
Other	0	0.0	57	0.8
Total	152	100	6,828	100

Note: Other Includes Bus, Motor Home, Heavy Equipment, Other Type Motor Vehicles.

Source: Department of Transportation: Accident Records

FIGURE 3-1 FATALITIES BY TRAVEL MODE

1989

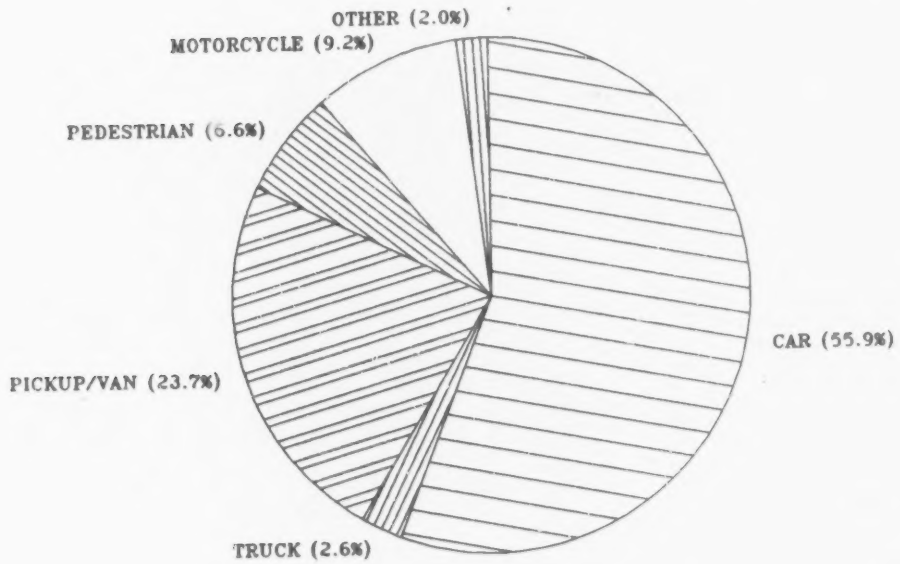


FIGURE 3-2 INJURIES BY TRAVEL MODE

1989

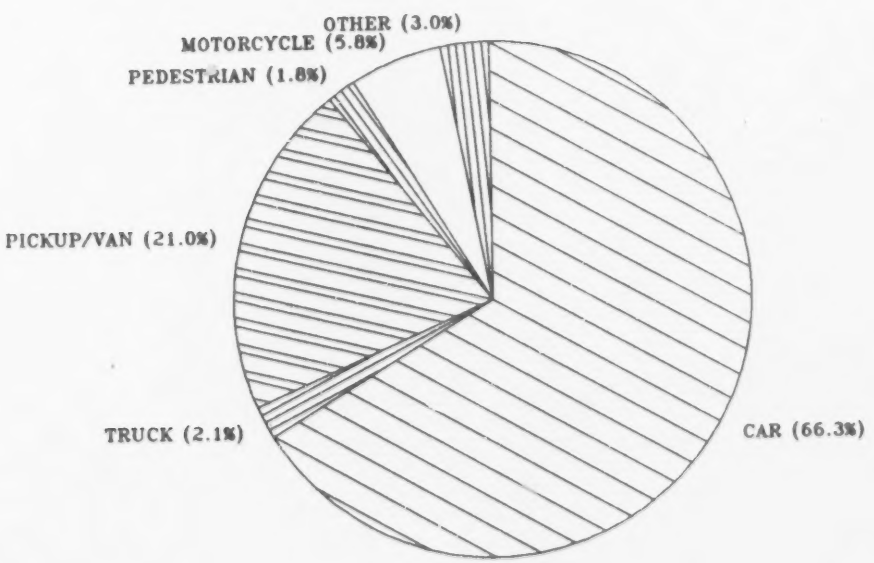


TABLE 3-3 provides information on all accident-involved vehicles by type. Trucks were involved in 21 or 11.1 percent of the vehicles involved in fatal accidents, but truck occupants (see TABLE 3-2 Mode of Transportation) makeup three percent or four of the persons killed. Passenger cars made up over half of the vehicles involved in fatal accidents and two-thirds of those involved in injury accidents.

TABLE 3-3
VEHICLE TYPES INVOLVED IN ACCIDENTS
1989

	All Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Passenger Cars	16,021	65.4	99	52.4	5,080	67.0	10,842	64.9
Pickups, Vans	6,864	28.0	51	27.0	1,836	24.2	4,977	29.8
Trucks	879	3.6	21	11.1	254	3.3	604	3.6
Motorcycle	380	1.6	15	7.9	332	4.4	33	0.2
Farm Machinery or Heavy Equipment	88	0.4	3	1.6	28	0.4	57	0.3
Bus	59	0.2	0	0.0	14	0.2	45	0.3
Motor Home	34	0.1	0	0.0	9	0.1	25	0.1
Moped	8	0.0	0	0.0	8	0.1	0	0.0
Snowmobile	1	0.0	0	0.0	1	0.0	0	0.0
Other or Unknown	149	0.6	0	0.0	23	0.3	126	0.8
Total	24,483	100	189	100	7,585	100	16,709	100

Source: Department of Transportation: Accident Records

TABLE 3-4 provides information on the ages of persons killed and injured. Fifty-three percent of the persons killed were under 30, with more 18 year olds killed than any other single age group. The average age of those killed was 34.7. See the Drivers Section beginning on Page 36 for additional information.

TABLE 3-4
FATALITIES AND INJURIES
BY AGE GROUP
1989

	Fatalities		Injuries	
	No.	%	No.	%
0 - 5	4	2.6	194	2.8
6 - 13	12	7.9	438	6.4
14 - 15	1	0.7	391	5.7
16 - 18	16	10.5	963	14.1
19 - 20	12	7.9	587	8.6
21 - 24	15	9.9	750	11.0
25 - 34	31	20.4	1,268	18.6
35 - 44	17	11.2	753	11.0
45 - 54	16	10.5	482	7.1
55 - 64	11	7.2	411	6.0
65-Over	17	11.2	503	7.4
Unknown	0	0	88	1.3
Total	152	100	6,828	100

NOTE: Revised table to group 19 and 20 year old deaths.

Source: Department of Transportation: Accident Records

First Harmful Event

The initial incident which causes injury or damage is referred to as the first harmful event. A motor vehicle collision with a fixed object represented 24 percent of the fatal accidents and only 17 percent of the total accidents (see TABLE 3-5). Animal involved accidents accounted for 13 percent of the total accidents. This is an upward trend.

TABLE 3-5
FIRST HARMFUL EVENT
1989

First Harmful Event	Total Accidents No.	%	Fatal Accidents No.	%	Injury Accidents No.	%	PDO Accidents No.	%
Motor Vehicle Collision With:								
Another MV (Not Parked)	7,861	52.4	50	37.3	2,571	55.8	5,240	51.0
A Fixed or Other Object	2,512	16.7	32	23.9	842	18.3	1,638	16.0
An Animal	1,896	12.6	1	0.7	85	1.8	1,810	17.6
A Parked Motor Vehicle	954	6.4	1	0.7	106	2.3	847	8.3
A Pedestrian	129	0.9	9	6.7	120	2.6	0	0.0
A Bicyclist	142	0.9	2	1.5	139	3.0	1	0.0
A Railroad Vehicle	35	0.2	2	1.5	16	0.3	17	0.2
Non-Collision (Overturning or Other)	1,476	9.8	37	27.6	726	15.8	713	6.9
Total	15,005	100	134	100	4,605	100	10,266	100

Source: Department of Transportation: Accident Records

Manner of Collision

The most common type or manner of collision between two or more vehicles is an angle collision which usually occur at an intersection. Angle collisions constitute 30.0 percent of the fatal collisions, 31.8 percent of the injury collisions, and 29.8 percent of the property damage only collisions. Rear-end collisions are second in prevalence accounting for 37.2 percent of the injury collisions and 26.7 percent of the property damage collisions. Head-on collisions are over represented in fatal accidents where they account for 48.0 percent of the collisions as compared to only four percent of the total collisions (see TABLE 3-6).

TABLE 3-6
MANNER OF COLLISION FOR ACCIDENTS INVOLVING A COLLISION
BETWEEN TWO OR MORE MOTOR VEHICLES
1989

Manner of Collision	Total Accidents No.	%	Fatal Accidents No.	%	Injury Accidents No.	%	PDO Accidents No.	%
Rear-End	2,359	30.0	4	8.0	957	37.2	1,398	26.7
Head-On	301	3.8	24	48.0	142	5.5	135	2.6
Angle	2,397	30.5	15	30.0	818	31.8	1,564	29.8
Sideswipe-Same Direction	593	7.5	2	4.0	89	3.5	502	9.6
Sideswipe-Opposite Dir.	104	1.3	1	2.0	18	0.7	85	1.6
Turning Movement	1,694	21.5	4	8.0	502	19.5	1,188	22.7
Backing Movement	414	5.3	0	0.0	45	1.8	369	7.0
Total	7,862	100	50	100	2,571	100	5,241	100

Source: Department of Transportation: Accident Records

Highway System

The number of reported accidents by highway system is presented in TABLE 3-7. Injury and PDO accidents happened predominately within city limits. City streets and alleys experienced 37 percent of the PDO accidents and 34 percent of the injury accidents.

Seventy-seven percent of the fatal accidents occurred on noninterstate rural roads with 57 fatal accidents on U.S./State highways and 46 on County/Local roads. The Interstate system experiences less than nine percent of the total accidents while accounting for 20 percent of the vehicle miles traveled in 1989 (see FIGURES 3-3 and 3-4).

TABLE 3-7
ACCIDENTS BY TYPE OF HIGHWAY
1989

Type of Highway	Total Accidents Number	%	Fatal Accidents Number	%	Injury Accidents Number	%	PDO Accidents Number	%
Interstate	1,285	8.6	7	5.2	320	6.9	958	9.3
US/State Hwys.-Rural	2,556	17.0	57	42.5	767	16.7	1,732	16.9
Co./Local Rds.-Rural	2,715	18.1	46	34.3	894	19.4	1,775	17.3
US/State Hwys.-City	3,103	20.7	7	5.2	1,077	23.4	2,019	19.7
City Streets/Alleys	5,346	35.6	17	12.7	1,547	33.6	3,782	36.8
Total	15,005	100	134	100	4,605	100	10,266	100

Source: Department of Transportation: Accident Records

FIGURE 3-3 1989 TRAFFIC ACCIDENTS

By Highway System Type

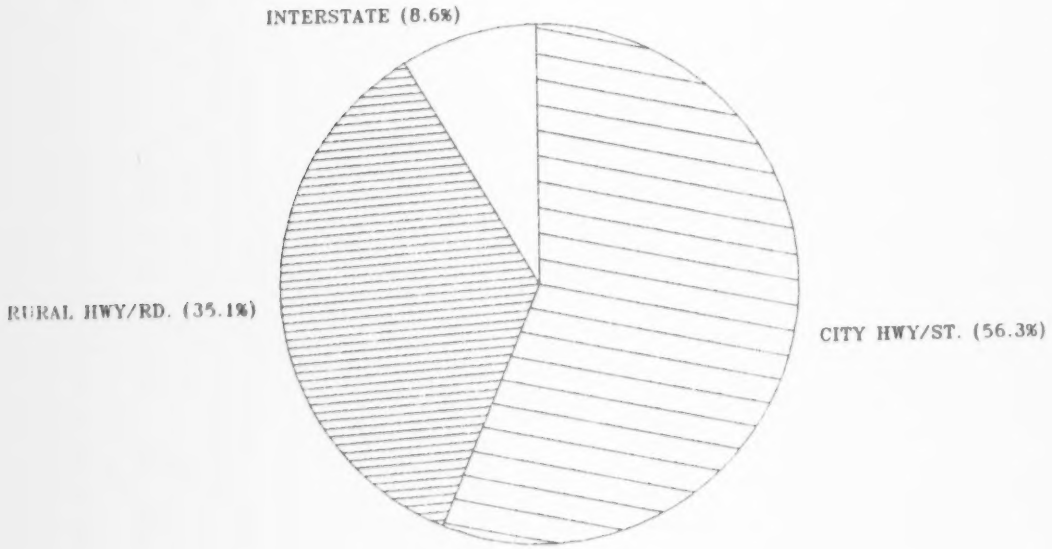
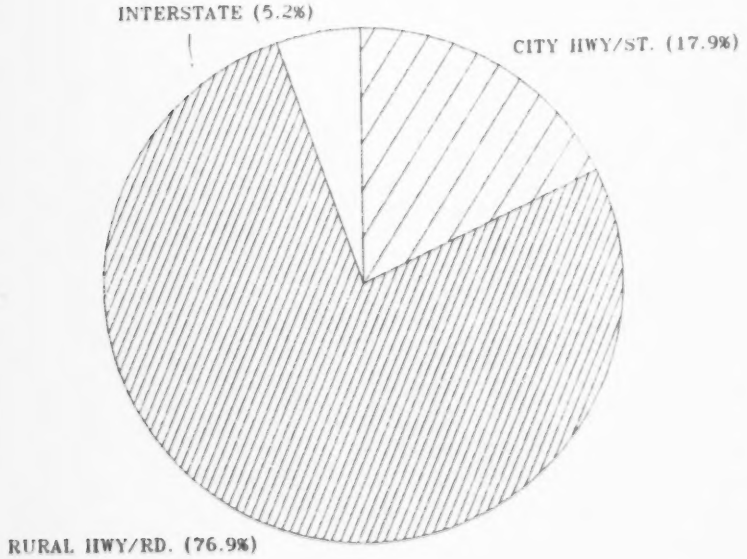


FIGURE 3-4 1989 FATAL TRAFFIC ACCID'S

By Highway System Type



County Summary

TABLE 3-8 provides a summary of all reported accidents by county in South Dakota.

Rural fatal and injury accidents occurred predominately in eleven counties (see TABLE 3-9). Each of these counties reported at least two percent of all rural fatal and injury accidents. The eleven accounted for 52.5 percent of rural fatal and injury accidents and 22.6 percent of all fatal and injury accidents in South Dakota. Pennington County had 11.5 percent of all rural fatal and injury accidents with Minnehaha and Lawrence counties accounting for 8.7 and 6.4 percent, respectively. FIGURE 3-5 presents the percentage involvement of rural fatal and injury accidents and compares this to the percentage of rural vehicle miles traveled in these counties. The most current figures available for rural VMTs by county are from 1986.

City Summary

Reported traffic accidents within South Dakota's cities (population of 2,500 and more) are presented in TABLE 3-10. These cities reported 53.8 percent of the statewide injury accidents and 14.2 percent of the fatal accidents. The two largest cities (Sioux Falls, Rapid City) accounted for 62 percent of fatal and injury accidents and 51 percent of the property damage only accidents that occurred in cities with populations of 2,500 or more.

Roadway Surface Conditions

The majority of the accidents occurred on dry roads, including fatal and injury accidents (see TABLE 3-11). Combining similar "bad" road conditions, ice, snow, frost, and slush accounts for 26.1 percent of all reported property damage accidents and 17.0 percent of all fatal and injury accidents. Nearly 72 percent of all fatal and injury accidents occurred on dry roads.

Contributing Circumstances (Vision Obscurement and Other)

Contributing circumstances at the accident level involve two categories: vision obscurement and other. The reporting officer may include one, two, or no contributing circumstances for each category. Vision obscurement refers to conditions such as: fog or smoke, blowing soil, dirt or sand, rain, snow, sleet or hail, windshield or window obscured, glare from sun or lights, trees or other vegetation, snowbank, etc. Vision obscurement as a contributing circumstance was indicated in 19.4 percent of all accidents with two separate vision obscurements being reported in less than two percent of all accidents. Rain, snow, sleet or hail was the most frequently reported vision obscurement and was indicated as a problem in 5.3 percent of all accidents.

Contributing Circumstances - Other - was reported in 35.1 percent of all accidents with two Contributing Circumstances-Other being reported in 2.6 percent of all accidents. These contributing circumstances include wind conditions, slippery surface, road shoulder conditions, objects or animals in the road, phantom vehicle, pedestrians, bicyclists, road construction conditions, rough roads, and faulty or missing traffic control devices. The most common condition reported was slippery surface, and it was reported as a factor in 20 percent of all accidents.

TABLE 3-8
REPORTED TRAFFIC ACCIDENTS
SOUTH DAKOTA COUNTIES
1989

County	Total Accd.	Fatal Accd.	Injury Accd.	PDO Accd	Fatalities	Injuries
AURORA	66	1	16	49	1	33
BEADLE	411	2	115	294	2	161
BENNETT	13	0	9	4	0	11
BON HOMME	82	2	25	55	2	38
BROOKINGS	508	5	139	364	7	203
BROWN	923	3	254	666	4	342
BRULE	162	0	31	131	0	42
BUFFALO	5	0	3	2	0	3
BUTTE	134	2	32	100	3	66
CAMPBELL	35	0	6	29	0	8
CHARLES MIX	107	2	43	62	3	63
CLARK	101	4	9	88	4	25
CLAY	193	1	70	122	1	91
CODINGTON	437	1	164	272	1	242
CORSON	57	1	23	33	1	32
CUSTER	240	5	73	162	5	116
DAVISON	540	2	155	383	2	224
DAY	134	4	26	104	4	43
DEUEL	86	3	22	61	4	37
DEWEY	70	3	21	46	3	44
DOUGLAS	18	2	6	10	2	12
EDMUNDS	92	0	18	74	0	26
FALL RIVER	96	2	34	60	2	47
FAULK	43	1	9	33	4	23
GRANT	118	4	37	77	5	53
GREGORY	72	1	18	53	1	30
HAAKON	93	3	17	73	3	18
HAMLIN	104	0	23	81	0	34
HAND	96	0	19	77	0	22
HANSON	68	0	7	61	0	8
HARDING	36	1	8	27	1	13
HUGHES	385	2	113	270	2	147
HUTCHINSON	93	1	15	77	1	23
HYDE	21	0	5	16	0	6
JACKSON	79	1	23	55	1	39
JERAULD	50	1	8	41	1	12
JONES	64	0	21	43	0	32
KINGSBURY	89	1	16	72	1	20
LAKE	199	1	64	134	1	83
LAWRENCE	645	9	165	471	12	241
LINCOLN	294	5	91	198	5	147
LYMAN	120	2	29	89	2	90
MC COOK	119	0	32	87	0	54
MC PHERSON	15	0	4	11	0	6

TABLE 3-8 (continued)

County	Total Accd.	Fatal Accd.	Injury Accd.	PDO Accd	Fatalities	Injuries
MARSHALL	72	2	16	54	2	23
MEADE	390	3	117	270	3	166
MELLETTE	13	3	4	6	3	11
MINER	78	0	28	50	0	45
MINNEHAHA	3,101	7	1,121	1,973	8	1,580
MOODY	124	0	44	80	0	63
PENNINGTON	2,383	17	844	1,522	19	1,256
PERKINS	47	1	22	24	1	29
POTTER	47	1	8	38	1	9
ROBERTS	81	1	32	48	2	55
SANBORN	65	1	13	51	1	21
SHANNON	46	7	12	27	8	34
SPINK	157	0	35	122	0	53
STANLEY	49	0	17	32	0	28
SULLY	44	1	11	32	1	17
TODD	42	2	17	23	2	33
TRIPP	152	3	22	127	3	33
TURNER	120	0	38	82	0	46
UNION	182	2	62	118	2	89
WALWORTH	76	0	17	59	0	36
YANKTON	408	4	105	299	4	186
ZIEBACH	15	1	2	12	1	5
Total:	15,005	134	4,605	10,266	152	6,828

Source: Department of Transportation: Accident Records

TABLE 3-9
COUNTIES HAVING MORE THAN TWO PERCENT OF THE
RURAL FATAL & INJURY ACCIDENTS
1989

County	Rural Fatal & Injury Accidents	Percent of All Rural Fatal & Injury Accidents	Percent of Rural VMTS
PENNINGTON	235	11.5	6.7
MINNEHAHA	177	8.7	5.7
LAWRENCE	131	6.4	2.6
MEADE	96	4.7	2.7
LINCOLN	75	3.7	3.5
BROWN	74	3.6	3.5
CUSTER	70	3.4	1.9
BROOKINGS	60	2.9	2.3
UNION	52	2.6	3.0
YANKTON	52	2.6	1.7
CODINGTON	49	2.4	2.0

Note: Total Rural Fatal and Injury Accidents: 2,039

Source: Department of Transportation: Accident Records

FIGURE 3-5 RURAL F&I ACC/VMT'S

SELECTED COUNTIES

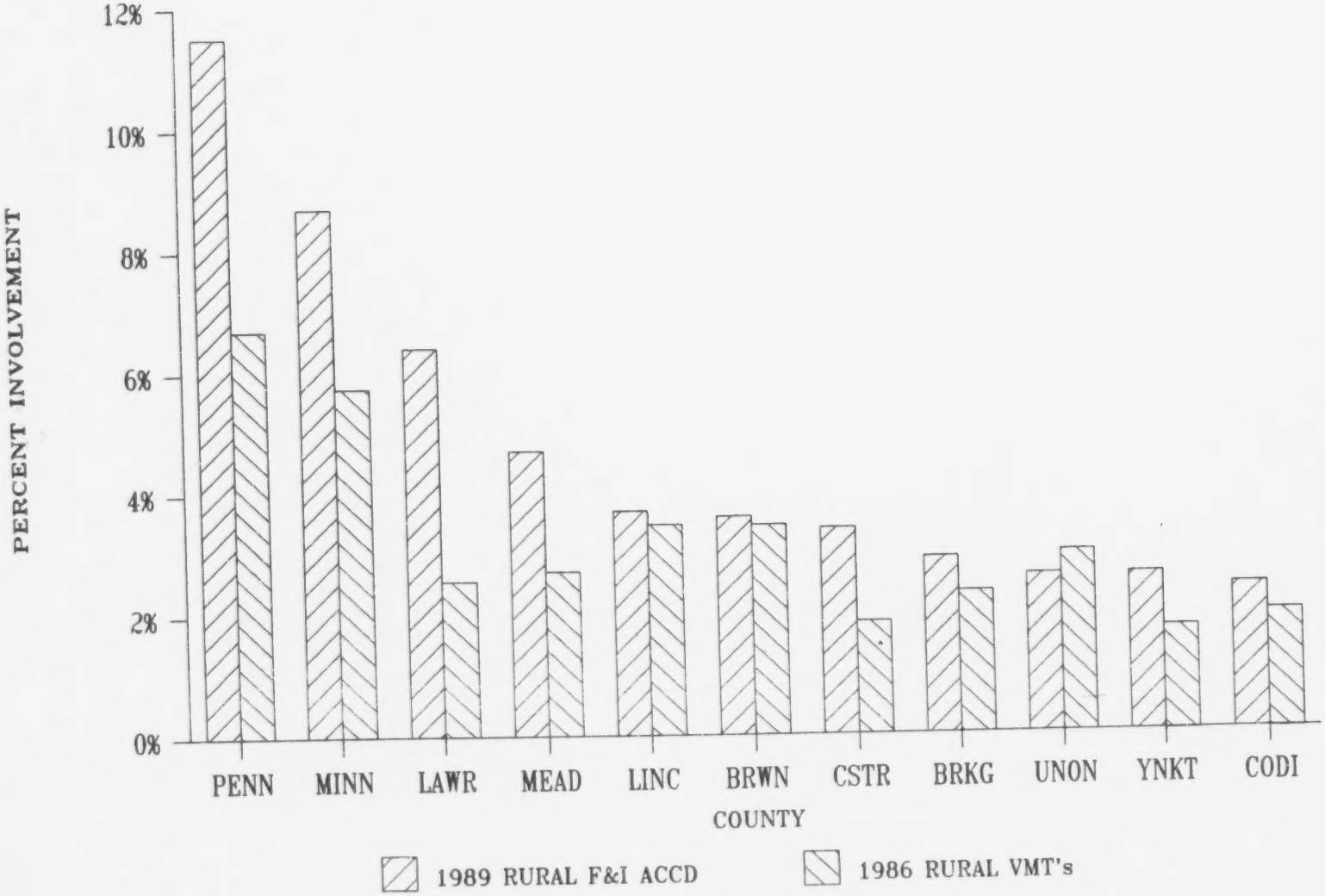


TABLE 3-10
TRAFFIC ACCIDENTS SOUTH DAKOTA CITIES
POPULATION 2500 AND OVER
1989

City	Total Accd.	Fatal Accd.	Injury Accd.	PDO Accd.	Fatalities	Injuries
Aberdeen	635	0	181	454	0	232
Belle Fourche	42	1	6	35	2	8
Box Elder	54	2	13	39	2	24
Brandon City	16	0	4	12	0	6
Brookings	250	0	78	172	0	105
Canton	62	0	17	45	0	24
Hot Springs	47	0	12	35	0	19
Huron	263	2	81	180	2	108
Lead	65	0	7	58	0	7
Madison	77	0	27	50	0	33
Milbank	62	0	14	48	0	15
Mitchell	431	0	128	303	0	183
Mobridge	37	0	5	32	0	6
Pierre	319	1	93	225	1	122
Rapid City	1,615	8	597	1,010	9	880
Redfield	39	0	8	31	0	11
Sioux Falls	2,448	3	932	1,513	3	1,303
Sisseton	15	0	4	11	0	5
Spearfish	125	0	28	97	0	35
Sturgis	104	0	24	80	0	36
Vermillion	104	0	42	62	0	54
Watertown	295	1	113	181	1	159
Winner	79	0	9	70	0	11
Yankton	256	1	56	199	1	86

Source: Department of Transportation: Accident Records

TABLE 3-11
ROADWAY SURFACE CONDITIONS
1989

	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Dry	9,950	66.3	108	80.6	3,291	71.5	6,551	63.8
Wet	1,423	9.5	10	7.5	487	10.6	926	9.0
Ice	1,995	13.3	8	6.0	451	9.8	1,536	15.0
Frost	144	1.0	1	0.7	41	0.9	102	1.0
Slush	174	1.2	1	0.7	42	0.9	131	1.3
Snow	1,177	7.8	5	3.7	258	5.6	914	8.9
Mud	20	0.1	0	0.0	3	0.1	17	0.2
Other	52	0.3	1	0.7	16	0.3	35	0.3
Unknown	70	0.5	0	0.0	16	0.3	54	0.5
Total:	15,005	100	134	100	4,605	100	10,266	100

Source: Department of Transportation: Accident Records

Accidents by Time of Day, Month, and Day of Week

The late afternoon, 3:00-5:59 p.m., was the peak three-hour period for accidents to occur. Nearly twenty-three percent of property damage only and 25.6 percent of injury accidents occurred during this time period. The one-hour period, 8:00 p.m.-9:00 p.m., had the most fatal accidents (11), the most fatalities (12) occurred between 11:00 p.m. and 12:00 a.m. (see TABLE 3-12).

The months of August and September had the most fatal accidents (36) or 26.9 percent, while the months of July and August had the most injury accidents (939) or 20 percent. The months of November and December recorded the most total accidents (3180) or 21 percent.

Friday and Saturday account for 32.9 percent of the injury accidents and 36.6 percent of the fatal accidents (see TABLE 3-14).

FIGURES 3-6 through 3-8 illustrate the trends of time of day, month, and day of week.

TABLE 3-12
ACCIDENTS BY TIME OF DAY
1989

Time	Total Accd.	Fatal Accd.	Injury Accd.	PDO Accd.	Fatalities	Injuries
Midnight	343	6	112	225	6	162
1:00 AM	339	6	119	214	7	183
2:00 AM	342	8	139	195	9	206
3:00 AM	197	2	64	131	2	95
4:00 AM	150	2	38	110	2	55
5:00 AM	194	0	47	147	0	61
6:00 AM	347	3	74	270	3	102
7:00 AM	638	4	172	462	4	227
8:00 AM	674	6	179	489	7	263
9:00 AM	456	1	134	321	1	212
10:00 AM	563	7	168	388	7	242
11:00 AM	695	5	229	461	7	338
12:00 PM	845	8	245	592	9	371
1:00 PM	823	4	238	581	4	333
2:00 PM	794	7	268	519	8	383
3:00 PM	1,252	5	412	835	6	634
4:00 PM	1,151	7	393	751	8	557
5:00 PM	1,120	8	373	739	10	569
6:00 PM	831	5	274	552	7	409
7:00 PM	749	4	224	521	4	330
8:00 PM	640	11	177	452	11	268
9:00 PM	685	7	178	500	7	260
10:00 PM	553	6	156	391	7	229
11:00 PM	473	8	162	303	12	301
Unknown	151	4	30	117	4	38
	15,005	134	4,605	10,266	152	6,828

Source: Department of Transportation: Accident Records

TABLE 3-13
ACCIDENTS BY MONTH
1989

Month	Total Accd.	Fatal Accd.	Injury Accd.	PDO Accd.	Fatalities	Injuries
JANUARY	1,091	8	290	793	8	445
FEBRUARY	1,265	10	309	946	11	459
MARCH	1,280	7	342	931	9	499
APRIL	936	9	297	630	10	465
MAY	1,061	13	366	682	16	539
JUNE	1,160	11	419	730	12	600
JULY	1,283	15	479	789	17	722
AUGUST	1,222	18	460	744	20	674
SEPTEMBER	1,220	18	417	785	22	630
OCTOBER	1,307	9	408	890	10	582
NOVEMBER	1,601	8	416	1,177	9	621
DECEMBER	1,579	8	402	1,169	8	592
Total	15,005	134	4,605	10,266	152	6,828

Source: Department of Transportation: Accident Records

TABLE 3-14
ACCIDENTS BY DAY OF WEEK
1989

Day	Total Accd.	Fatal Accd.	Injury Accd.	PDO Accd.	Fatalities	Injuries
SUNDAY	1,845	19	597	1,229	22	958
MONDAY	1.994	13	620	1,361	13	860
TUESDAY	1,971	13	586	1,372	13	851
WEDNESDAY	2,145	20	630	1,495	24	894
THURSDAY	2,151	20	656	1,475	23	914
FRIDAY	2,614	23	737	1,854	25	1,122
SATURDAY	2,285	26	779	1,480	32	1,229
Total	15,005	134	4,605	10,266	152	6,828

Source: Department of Transportation: Accident Records

FIGURE 3-6 ACCIDENTS BY TIME OF DAY

1989

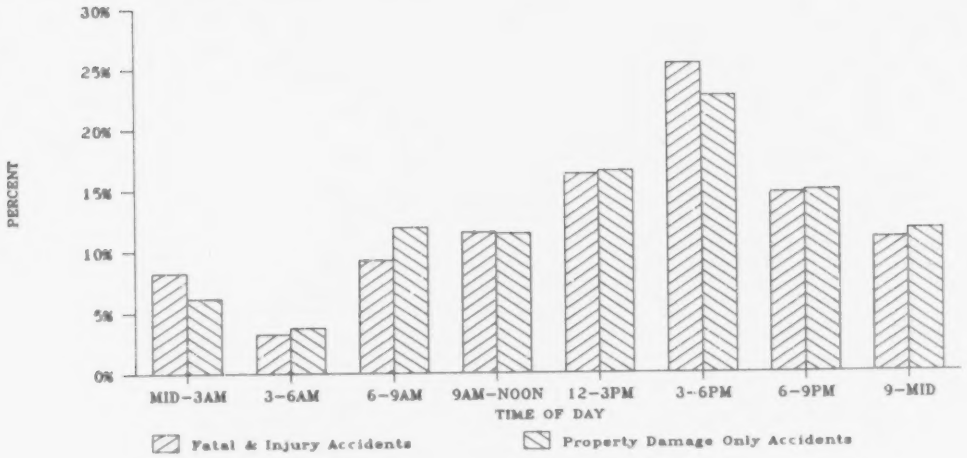


FIGURE 3-7 ACCIDENTS BY MONTH

1989

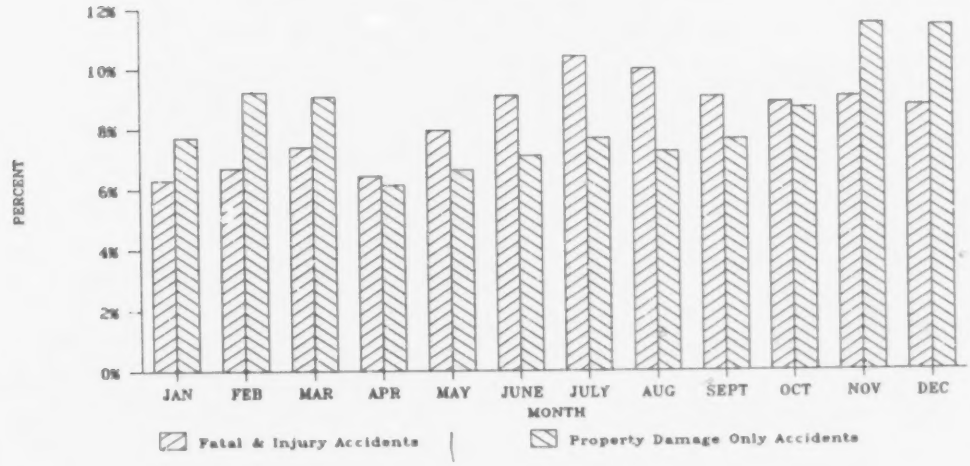
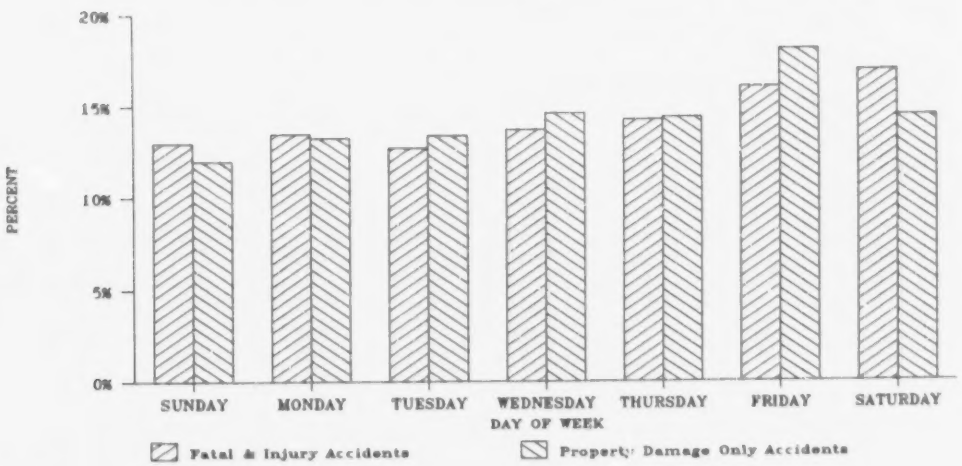


FIGURE 3-8 ACCIDENTS BY DAY OF WEEK

1989



Drivers

There were 23,242 motor vehicle drivers in the 15,005 reported motor vehicle accidents, including 186 drivers in fatal accidents and 7,416 drivers in injury accidents. Eighty-seven drivers were killed, which is 57.2 percent of all persons killed in motor vehicle accidents and 63.0 percent or 4,299 of the 6,828 injured were drivers.

Young drivers are involved in more accidents than any other age group (see TABLE 3-15). Thirty-six percent of the drivers in reported accidents are under 25 years of age and 59.4 percent are under 35. Age of drivers involved in fatal and injury accidents follow the pattern of drivers in all accidents. Those drivers under 25 represent 33.3 percent of the drivers involved in fatal accidents and 38.3 percent of the drivers in injury accidents. Drivers under the age of 35 make up 57.0 percent of the drivers in fatal accidents and 61.9 percent of the drivers in injury accidents.

TABLE 3-15
AGE OF DRIVERS IN ACCIDENTS
1989

Age	Drivers In All Accidents No.	%	Drivers In Fatal Accidents No.	%	Drivers In Injury Accidents No.	%	Drivers In PDO Accidents No.	%
6-13	31	0.1	1	0.5	17	0.2	13	0.1
14-15	820	3.5	4	2.2	284	3.8	532	3.4
16-18	3,127	13.5	22	11.8	995	13.4	2,110	13.5
19-20	1,789	7.7	15	8.1	638	8.6	1,136	7.3
21-24	2,697	11.6	20	10.8	910	12.3	1,767	11.3
25-34	5,345	23.0	44	23.7	1,750	23.6	3,551	22.7
35-44	3,527	15.2	26	14.0	1,054	14.2	2,447	15.6
45-54	2,011	8.7	25	13.4	597	8.1	1,389	8.9
55-64	1,645	7.1	12	6.5	516	7.0	1,117	7.1
65-Over	2,053	8.8	16	8.6	610	8.2	1,427	9.1
Unknown	197	0.8	1	0.5	45	0.6	151	1.0
Total	23,242	100	186	100	7,416	100	15,640	100

Source: Department of Transportation: Accident Records

Drinking drivers are of major concern because of the number of alcohol-involved serious accidents. TABLE 3-16 provides information on the age of drinking drivers in motor vehicle accidents. There were a reported 1,563 drinking drivers in all accidents which is 6.7 percent of all drivers in accidents. Seventy or 37.6 percent of drivers in fatal accidents had been drinking while 10.6 percent of the drivers involved in injury accidents had been drinking. Young drivers are predominantly the drinking drivers in accidents. Those drivers under 25 years of age accounted for 42.9 percent of the drinking drivers in fatal accidents, and, 43.6 percent of the drinking drivers in injury accidents. Those drivers under 35 years of age accounted for 71.4 percent the drinking drivers in fatal accidents and 72.9 percent of the drinking drivers in all accidents.

TABLE 3-16
AGE OF DRINKING DRIVERS IN ACCIDENTS
1989

Age	Drivers In All Accidents No.	%	Drivers In Fatal Accidents No.	%	Drivers In Injury Accidents No.	%	Drivers In PDO Accidents No.	%
14-15	13	0.8	1	1.4	5	0.6	7	1.0
16-18	193	12.3	10	14.3	97	12.3	86	12.2
19-20	163	10.4	8	11.4	90	11.5	65	9.2
21-24	293	18.7	11	15.7	151	19.2	131	18.5
25-34	478	30.6	20	28.6	232	29.5	226	32.0
35-44	225	14.4	10	14.3	118	15.0	97	13.7
45-54	105	6.7	7	10.0	46	5.9	52	7.4
55-64	53	3.4	2	2.9	30	3.8	21	3.0
65-Over	29	1.9	1	1.4	12	1.5	16	2.3
Unknown	11	0.7	0	0.0	5	0.6	6	0.8
Total	1,563	100	70	100	786	100	707	100

Source: Department of Transportation: Accident Records

TABLE 3-17 compares age of drivers in fatal and injury accidents, drinking drivers in fatal and injury accidents, and speeding drivers in fatal and injury accidents with licensed drivers by age. Again the young driver is over represented as those drivers in fatal and injury accidents, drinking drivers in fatal and injury accidents, and speeding drivers in fatal and injury accidents. Over 18 percent of the licensed drivers in South Dakota were under 25, but 43.6 percent of the drinking drivers in fatal and injury accidents and 53.3 percent of the speeding drivers in fatal and injury accidents were under 25 years of age. Seventy-three percent of the drinking drivers and seventy-six percent of the speeding drivers in fatal and injury accidents were under 35 years of age while drivers under 35 years of age constitute 40.5 percent of all licensed drivers (also see FIGURES 3-9 and 3-10).

TABLE 3-17
LICENSED DRIVERS AND FATAL AND INJURY ACCIDENT-INVOLVED DRIVERS BY AGE
1989

Age	Licensed Drivers %	Drivers In Fatal & Injury Accidents No.	%	Drinking Drivers In Fatal & Injury Accidents No.	%	Speeding Drivers In Fatal & Injury Accidents No	%
0-13	0.0	18	0.2	0	0.0	5	0.4
14-15	1.6	288	3.8	6	0.7	80	6.4
16-17	3.3	624	8.2	56	6.5	153	12.3
18	1.9	393	5.2	51	6.0	99	7.9
19	2.0	360	4.7	59	6.9	82	6.6
20	2.0	293	3.9	39	4.6	70	5.6
21-24	7.6	930	12.2	162	18.9	176	14.1
25-34	22.1	1,794	23.6	252	29.4	287	23.0
35-44	19.0	1,080	14.2	128	15.0	154	12.3
45-54	12.3	622	8.2	53	6.2	63	5.0
55-64	11.5	528	6.9	32	3.7	41	3.3
65-Over	16.8	626	8.2	13	1.5	31	2.5
Unknown	0.0	46	0.6	5	0.6	7	0.6
TOTAL	100	7,602	100	856	100	1,248	100

Sources: Department of Transportation: Accident Records
Department of Commerce & Regulation: Driver License Issuance

FIGURE 3-9 DRIVERS BY AGE GROUP 1989

Fatal and Injury Accd. Involved Drivers

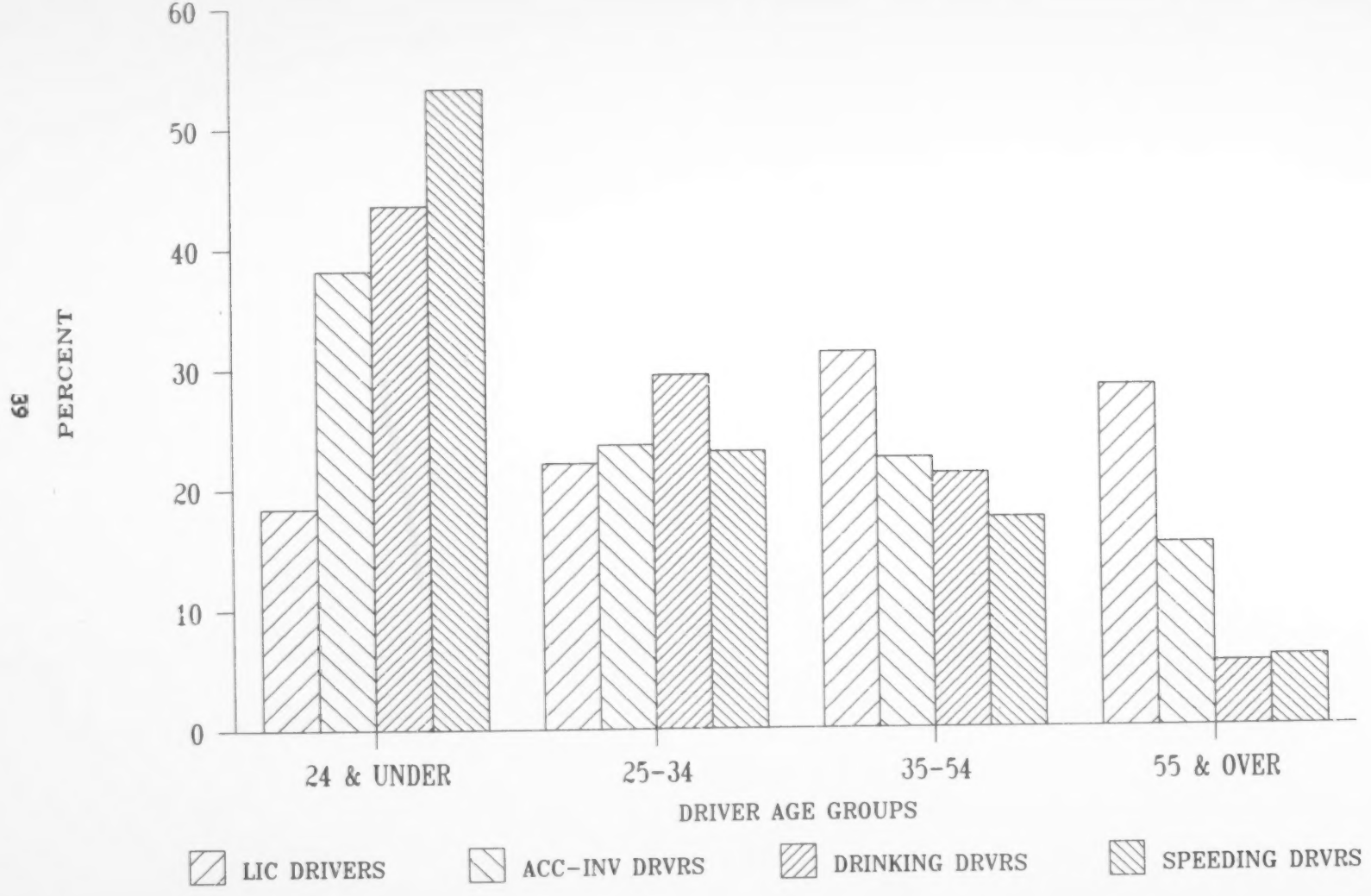
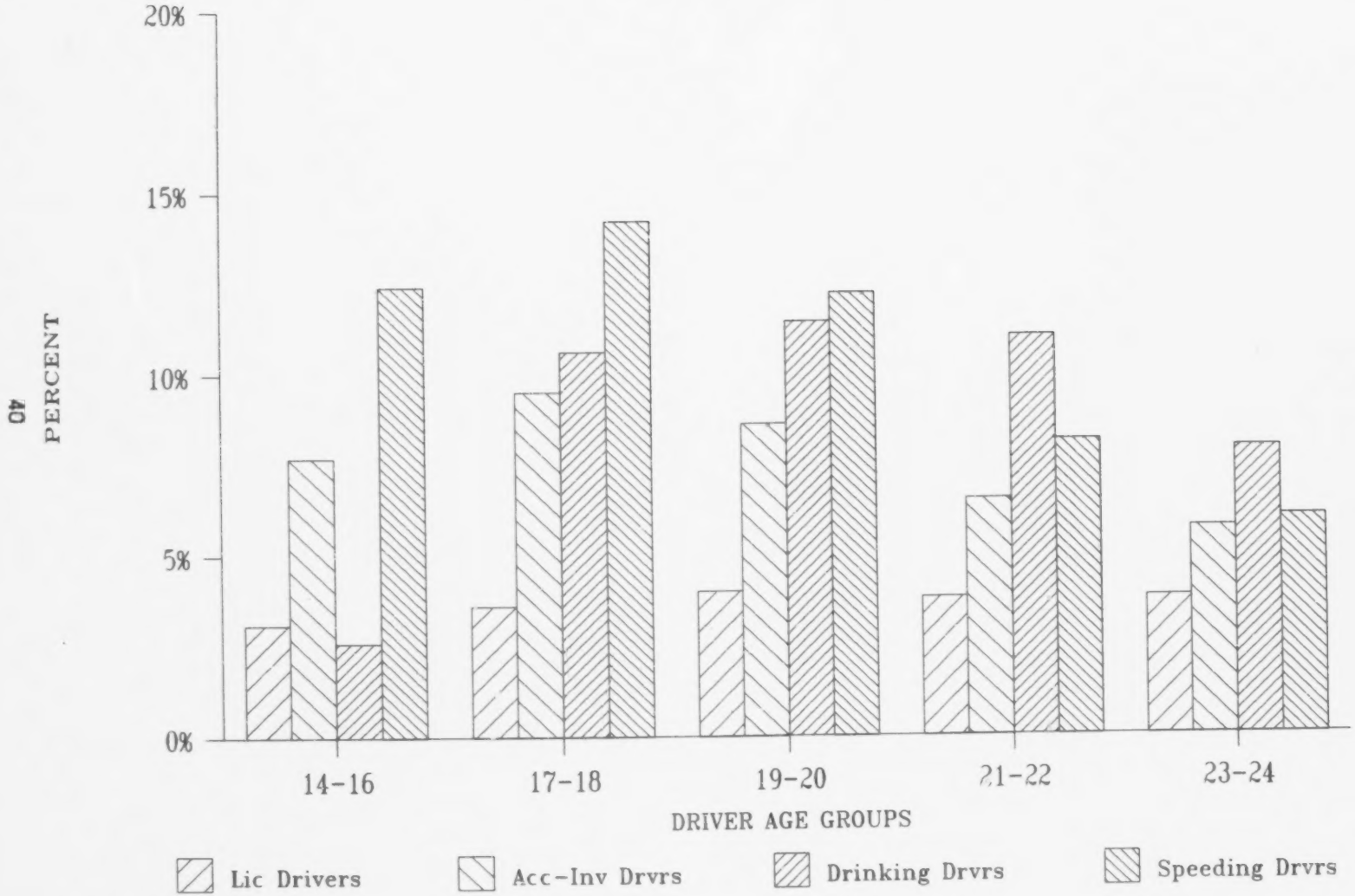


FIGURE 3-10 YOUNG DRIVERS 1989

FATAL & INJURY ACCIDENT-INVOLVED DRIVERS



Driver actions are reported to indicate possible factors that may have contributed to the accidents. These factors are referred to as driver contributing circumstances. Drinking was the leading driver contributing circumstance in fatal accidents during 1989. It was indicated that the drinking of 70 or 37.6 percent of the drivers in fatal accidents contributed to the accident. Exceeding the speed limit and driving on the wrong side of the road were the other leading driver contributing circumstance in fatal accidents. Failing to yield to another vehicle was the leading contributing circumstance in injury accidents. Drinking and exceeding a safe speed but not the legal limit were other leading driver contributing circumstances in injury accidents (see TABLE 3-18).

TABLE 3-18
MOTOR VEHICLE DRIVER CONTRIBUTING CIRCUMSTANCES
1989

	Total Accidents No.	%	Fatal Accidents No.	%	Injury Accidents No.	%	PDO Accidents No.	%
No Contributing Circumstances	11,830	50.9	54	29.0	3,343	45.1	8,433	53.9
Drinking	1,563	6.7	70	37.6	786	10.6	707	4.5
Exceeded Speed Limit	1,029	4.4	45	24.2	494	6.7	490	3.1
Wrong Side of Road	465	2.0	25	13.4	205	2.8	235	1.5
Exceeded Safe Speed But Not Limit	2,078	8.9	14	7.5	695	9.4	1,369	8.8
Failed to Yield to Vehicle	3,064	13.2	17	9.1	1,036	14.0	2,011	12.9
Failed to Stop for Stop Sign Flashing Red	406	1.7	7	3.8	180	2.4	219	1.4
Fell Asleep	352	1.5	12	6.5	166	2.2	174	1.1
Improper Passing	271	1.2	5	2.7	79	1.1	187	1.2
Distracted by Object/ Person in Car	524	2.3	4	2.2	228	3.1	292	1.9
Improper Turn	598	2.6	2	1.1	200	2.7	396	2.5
Following Too Closely	1,144	4.9	2	1.1	479	6.5	663	4.2
Improper Backing	386	1.7	0	0.0	40	0.5	346	2.2
Other*	2,317	10.0	17	9.1	816	11.0	1,484	9.5
Unknown	673	2.9	12	6.5	212	2.9	449	2.9
Total Drivers	23,242		186		7,416		15,640	

Note: The investigating officer may assign from zero to three contributing circumstances to each driver; therefore, the number of drivers in motor vehicle accidents does not equal the number of contributing circumstances. The number of drivers having drinking as a contributing circumstance is equal to the number of reported drinking drivers in accidents.

*Other includes driving under posted minimum, failed to yield to pedestrian, disregarded stop and go signal, disregarded other traffic control devices, improper signal or failure to signal, turning from wrong lane, improper lane change, improper start from parked position, improper parking, failure to comply with license restrictions, drugs, illness, physical impairment, and illegally in roadway.

Source: Department of Transportation: Accident Records

Motorcycles

Motorcycle accidents constitute 2.5 percent of all accidents, 10.4 percent of all fatal accidents, and 7.1 percent of all injury accidents. There were 14 people killed and 394 injured on motorcycles in the 377 reported motorcycle accidents during 1989. The number of motorcycle accidents have shown a decline in the last few years, while the number of licensed motorcyclists have stabilized at approximately 45,000 (see TABLE 2-8). The young motorcycle driver is over represented in accidents when compared to their portion of licensed motorcycle operators. Twenty-three percent of all accident-involved drivers are less than 20 years of age and 61 percent are under 30 (see TABLE 3-19 and FIGURE 3-11).

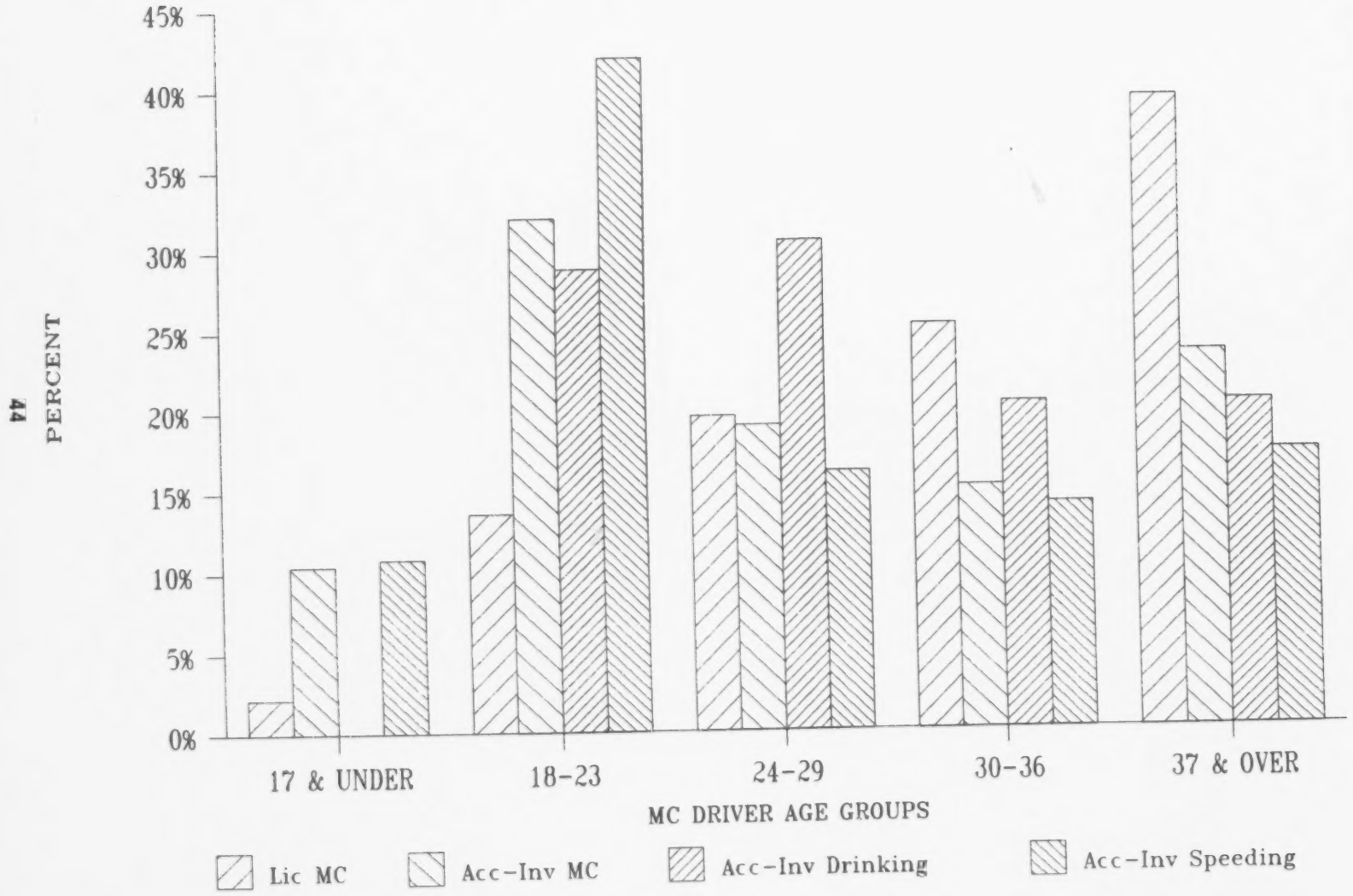
TABLE 3-19
MOTORCYCLISTS BY AGE GROUP
1989

Age Group	Licensed Motorcyclists No.	%	Motorcycle Drivers In Accidents No.	%	Drinking Motorcycle Drivers In Accidents No.	%	Speeding Motorcycle Drivers In Accidents No.	%
0-13	0	0.0	2	0.5	0	0.0	1	1.1
14-15	212	0.5	10	2.6	0	0.0	2	2.2
16-17	812	1.8	28	7.3	0	0.0	7	7.5
18-19	1,643	3.6	50	13.0	3	5.1	16	17.2
20-21	2,227	4.9	42	10.9	10	16.9	14	15.1
22-23	2,379	5.2	31	8.1	4	6.8	9	9.7
24-25	2,681	5.8	28	7.3	7	11.9	3	3.2
26-27	3,032	6.6	24	6.3	5	8.5	8	8.6
28-29	3,290	7.2	21	5.5	6	10.2	4	4.3
30-31	3,279	7.2	21	5.5	3	5.1	3	3.2
32-36	8,253	18.0	37	9.6	9	15.3	10	10.8
37-41	6,342	13.8	24	6.3	5	8.5	6	6.5
42-51	6,439	14.0	40	10.4	6	10.2	5	5.4
52-Over	5,255	11.5	22	5.7	1	1.7	4	4.3
Unknown	0	0	4	1.0	0	0.0	1	1.1
Total	45,844	100	384	100	59	100	93	100

Sources: Department of Commerce & Regulation: Driver License Issuance
Department of Transportation: Accidents Records

FIGURE 3-11 MOTORCYCLISTS 1989

ACCIDENT-INVOLVED MOTORCYCLE & MOPED DRIVERS



Helmets were used by 105 or 29.2 percent of the motorcycle drivers in accidents while 255 or 70.8 percent did not wear a helmet (see TABLE 3-20). Twelve motorcycle drivers and two motorcycle passengers were killed during 1989; only one was wearing a helmet. Four were wearing eye protection.

TABLE 3-20
HELMET USE BY MOTORCYCLE DRIVERS IN ACCIDENTS
1989

Age	Helmet Used No.	Helmet Used %	Helmet Not Used No.	Helmet Not Used %
6-13	0	0.0	2	100.0
14-15	7	87.5	1	12.5
16-17	18	66.7	9	33.3
18-20	14	21.9	50	78.1
21-24	16	23.2	53	76.8
25-34	21	21.2	78	78.8
35-44	15	30.0	35	70.0
45-Over	14	35.0	26	65.0
Unknown	0	0.0	1	100.0
Total	105	29.2	255	70.8

Note: Percentages are row percents.

Excludes unknown and other helmet usage.

Source: Department of Transportation: Accident Records

Pedestrians

There were ten pedestrian deaths and 125 injuries in motor vehicle accidents during 1989 (see TABLE 3-21). The youngest pedestrian killed was five years old, while the oldest was 72. Of the injured pedestrians, 44.8 percent were under 14 years of age and 56.0 percent were under 21 years of age. Ninety-four percent of the pedestrian injuries occurred in a city (see TABLE 3-23).

During the last 20 years, there has been an average of 17 pedestrians killed in accidents each year. More pedestrians were killed (30) during 1972 than any other single year (see TABLE 2-9). Drinking was the most common contributing circumstance in pedestrian fatalities. There were no contributing circumstances in 67 or 53.6 percent of the pedestrian injuries. Officers reported that four of the 10 pedestrians killed had been drinking alcohol (see TABLE 3-22). The average BAC of those pedestrians who had been drinking was 0.20 percent with BACs ranging from 0.14 percent to 0.31 percent.

TABLE 3-21
AGE OF PEDESTRIANS IN TRAFFIC ACCIDENTS
1989

	Fatalities		Injuries	
	No.	%	No.	%
0-5	1	10.0	17	13.6
6-13	2	20.0	39	31.2
14-19	0	0.0	14	11.2
20-24	1	10.0	5	4.0
25-34	1	10.0	11	8.8
35-44	1	10.0	7	5.6
45-54	2	20.0	9	7.2
55-64	0	0.0	11	8.8
65-Over	2	20.0	11	8.8
Unknown	0	0.0	1	0.8
Total	10	100	125	100

Source: Department of Transportation: Accident Records

TABLE 3-22
ALCOHOL INVOLVEMENT BY PEDESTRIANS
1989

Alcohol Involvement	Fatalities No.	%	Injuries No.	%
Alcohol or Drugs	4	40.0	12	9.6
No Alcohol	4	40.0	105	84.0
Unknown	2	20.0	8	6.4
Total	10	100	125	100

Source: Department of Transportation: Accident Records

TABLE 3-23
RURAL vs. CITY PEDESTRIAN ACCIDENTS
1989

	Fatalities	Injuries
Rural	3	7
City	7	118
Total	10	125

Source: Department of Transportation: Accident Records

Bicycles

There were two bicycle drivers killed and 141 injured in reported motor vehicle accidents during 1989 (see TABLE 3-24). There were three bicycle passengers injured during 1989. The leading factor in bicycle involved crashes was the bicycle driver failing to yield to a motor vehicle. Other bicyclist contributing circumstances were failing to stop for stop sign or flashing red light, being on the wrong side of the road, illegally in the roadway, and improper turn. Forty-five of the bicycle drivers in accidents had no contributing circumstances. **Bicycle injuries, which include three passengers, in 1989, increased 5.6 percent over the prior three-year average.** The yearly, 1970-1989 trend of bicycle fatalities and injuries is provided in TABLE 2-10.

TABLE 3-24
AGE OF BICYCLE DRIVERS IN TRAFFIC ACCIDENTS
1989

	Fatalities Number	Injuries Number	%
0-5	0	6	4.3
6-13	0	81	57.4
14-19	0	25	17.7
20-24	0	5	3.5
25-34	1	15	10.6
35-44	1	3	2.1
45-54	0	2	1.4
55-64	0	2	1.4
65-Over	0	1	0.7
Unknown	0	1	0.7
Total	2	141	100

Source: Department of Transportation: Accident Records

IV. GLOSSARY OF TERMS

Reportable Traffic Accident: motor vehicle traffic accident which involves death, injury or property damage to an apparent extent of five hundred dollars or more to any one person's property or accumulated property damage of one thousand dollars per accident.

Fatal Accident: motor vehicle traffic accident in which at least one person dies as the result of the accident and dies within 30 days of the date of the accident.

Injury Accident: motor vehicle accident in which at least one person was injured and no one was killed.

Property Damage Only (PDO) Accident: motor vehicle accident in which no one was killed or injured but there was property damage to an apparent extent of five hundred dollars or more to any one person's property or accumulated property damage of one thousand dollars per accident.

Fatality Rate: number of traffic fatalities per 100 million vehicle miles traveled.

Alcohol Involved Accident (1983-1989): at least one driver, pedestrian, or bicycle driver had been drinking in the opinion of the investigating officer.

Economic Loss: the calculable costs of motor vehicle accidents are wage loss, medical expense, insurance administration cost, and property damage. (Source: Estimating the Costs of Accidents 1988, National Safety Council)

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